



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–2013–0042]

[4500030114]

RIN 1018–AZ70

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Bi-State Distinct Population Segment of Greater Sage-Grouse

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, propose to designate critical habitat for the the Bi-State distinct population segment (DPS) of greater sage-grouse (*Centrocercus urophasianus*) under the Endangered Species Act (Act). In total, approximately 755,960 hectares (1,868,017 acres) fall within the boundaries of the

proposed critical habitat designation in Carson City, Lyon, Douglas, Mineral, and Esmeralda Counties, Nevada, and Alpine, Mono, and Inyo Counties, California. If we finalize this rule as proposed, it would extend the Act's protections to this DPS's critical habitat.

DATES: *Comment Submission:* We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. *Public Meeting:* Two public meetings will be held on this proposed rule: (1) November 5, 2013, from 4:00 p.m. to 6:00 p.m. (Pacific Time); and (2) November 6, 2013, from 1:00 p.m. to 3:00 p.m. (Pacific Time). People needing reasonable accommodations in order to attend and participate in the public hearing should contact Jeannie Stafford, Nevada Fish and Wildlife Office, as soon as possible (see **FOR FURTHER INFORMATION CONTACT**).

ADDRESSES: *Comment Submission:* You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter FWS–R8–ES–2013–0042, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the

screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R8–ES–2013–0042; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments **only** by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the **Information Requested** section below for more information).

Public Meetings: The November 5, 2013, public meeting will be held at the Tri-County Fairgrounds, Home Economics Room, Sierra Street and Fair Drive, Bishop, CA 93514. The November 6, 2013, public meeting will be held at the Smith Valley Community Center, 2783 State Route 208, Wellington, NV 89444.

Details of Units: The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at www.regulations.gov at Docket No. FWS–R8–ES–2013–0042, the Reno Fish and Wildlife Office or on their website at <http://www.fws.gov/nevada/>, and at the Ventura Fish and Wildlife Office or on their website at <http://www.fws.gov/ventura/> (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we may develop for this critical habitat designation will also be available

at the Fish and Wildlife Service websites and Field Offices set out above, and may also be included in the preamble or at <http://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: For general information on the proposed critical habitat designation as well as information about the proposed critical habitat specific to Nevada (Carson City, Lyon, Douglas, Mineral, and Esmeralda Counties), contact Edward D. Koch, State Supervisor, U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, 1340 Financial Boulevard, Suite 234, Reno, NV 89502; telephone 775–861–6300; or facsimile 775–861–6301. For information about the proposed critical habitat specific to California (Alpine, Mono, and Inyo Counties), contact Diane Noda, Field Supervisor, or Carl Benz, Assistant Field Supervisor, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003; telephone 805–644–1766; facsimile 805–644–3958. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Elsewhere in today’s **Federal Register**, we propose to list the Bi-State DPS of greater sage-grouse as a threatened species under the Endangered Species Act. Under the Act, critical habitat shall be designated, to the maximum extent

prudent and determinable, for any species determined to be an endangered or threatened species under the Act. Designations and revisions of critical habitat can be completed only by issuing a rule.

This rule proposes to designate critical habitat for the Bi-State DPS of greater sage-grouse (hereafter referred to as the Bi-State DPS of greater sage-grouse or the Bi-State DPS). Based on our proposal to list the Bi-State DPS as a threatened species, we are proposing critical habitat for the Bi-State DPS under the Act. In total, approximately 755,960 hectares (ha) (1,868,017 acres (ac)) are being proposed for designation as critical habitat in Carson City, Lyon, Douglas, Mineral, and Esmeralda Counties in Nevada, and Alpine, Mono, and Inyo Counties in California.

The basis for our action. Under the Endangered Species Act, any species that is determined to be an endangered or threatened species shall, to the maximum extent prudent and determinable, have habitat designated that is considered to be critical habitat. Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

We are preparing an economic analysis of the proposed designation of critical habitat.

In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek additional public review and comment.

We will seek peer review. We are seeking comments from independent specialists to ensure that our critical habitat proposal is based on scientifically sound data and analyses. We have invited these peer reviewers to comment on our specific assumptions and conclusions in this listing proposal. A thorough review of information that we relied on in making this determination—including information on taxonomy, habitat, distribution, population estimates and trends, and potential threats—is presented in the Bi-State DPS Species Report available at <http://www.regulations.gov> (Docket No. FWS–R8–ES–2013–0042). A summary of this analysis is found within the proposed listing rule published elsewhere in today’s **Federal Register**. Because we will consider all comments and information we receive during the comment period, our final determination may differ from this proposal.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as

possible. Therefore, we request comments or information from other concerned government agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The amount and distribution of the Bi-State DPS’s habitat;

(b) What areas, that were occupied at the time of listing (or are currently occupied) and that contain features essential to the conservation of the DPS, should be included in the designation and why;

(c) The features essential to the conservation of the Bi-State DPS as described in the *Physical and Biological Features* section of this rule, in particular the currently unsuitable or less than suitable habitat that accommodates restoration identified in the Bi-State Action Plan (i.e., actions HIR1–1–PN, HIR 1–2–PN, HIR1–1–DCF, HIR1–2–DCF, HIR1–1–MG, HIR1–1–B, and HIR1–3–SM) (Bi-State Technical Advisory Committee (TAC) 2012, pp. 93–95).

(d) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of

climate change; and

(e) What areas not occupied at the time of listing are essential for the conservation of the DPS and why.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on the Bi-State DPS and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation; in particular, we seek information on any impacts on small entities or families, and the benefits of including or excluding areas that exhibit these impacts.

(6) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act, in particular lands managed or utilized by the Department of Defense (U.S. Marine Corps' Mountain Warfare Training Center) and by the Los Angeles Water and Power District (LAPWD).

(7) Whether we could improve or modify our approach to designating critical

habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments **only** by the methods described in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. You may request at the top of your document that we withhold personal information such as your street address, phone number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

All previous Federal actions are described in the proposal to list the Bi-State DPS as a threatened species under the Act, which is published elsewhere in today's **Federal Register**.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

- (1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features
 - (a) Essential to the conservation of the species, and
 - (b) Which may require special management considerations or protection; and
- (2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law

enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it is listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management

considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. We designate critical habitat in areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and

our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, would continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or

threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools would continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation would not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

For the purposes of this proposed rule, we discuss the biology of the Bi-State DPS, its habitat, population abundance information, and other physical, biological, or geographical information within the context of the local management units (Population Management Units (PMUs)) used by the various land management agencies within the range of the DPS. Six PMUs were established in 2001 as management tools for defining and monitoring sage-grouse distribution in the Bi-State area (Sage-Grouse Conservation Planning Team 2001, p. 31). The PMU boundaries are based on aggregations of leks (communal breeding areas), known seasonal habitats, and telemetry data, which represent generalized subpopulations or local breeding complexes. The six PMUs (north to south) include: Pine Nut, Desert Creek-Fales, Bodie, Mount Grant, South Mono, and White Mountains PMUs. These six PMUs represent a total of four to eight demographically independent populations with a combined total of approximately 43 active leks (Service 2013a, pp. 17–20). Please see the proposed listing rule published elsewhere in today's

Federal Register or the Species Report (Service 2013a, entire) available at <http://www.regulations.gov> under Docket No. FWS–R8–ES–2013–0042 for more background information related to these PMUs. Additionally, the PMUs are identified in the **Proposed Regulation Promulgation** section of this proposed rule.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist:

- (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or
- (2) Such designation of critical habitat would not be beneficial to the species.

There is currently no imminent threat of take attributed to collection or vandalism according to the analysis presented in the Species Report (Service 2013a, entire) and summarized in our proposed rule to list the Bi-State DPS as threatened (published elsewhere in today's **Federal Register**). Identification and mapping of critical habitat is not expected to initiate any such threat. In the absence of finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. Here, the potential benefits of

designation include: (1) Triggering consultation under section 7 of the Act in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the DPS. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the DPS and may provide some measure of benefit, we find that designation of critical habitat is prudent for the Bi-State DPS.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the eight species is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or

(ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where the Bi-State DPS is located. This and other information represent the best scientific data available and lead us to conclude that the designation of critical habitat is determinable for the Bi-State DPS.

Physical or Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

We derive the specific physical or biological features essential for the Bi-State DPS from studies of this species' habitat, ecology, and life history as summarized in the

proposed listing rule published elsewhere in today's **Federal Register**, and in greater detail in the Species Report (Service 2013a, entire) available at <http://www.regulations.gov> (in the Search box, enter FWS–R8–ES–2013–0042, which is the docket number for this rulemaking). We have determined that the following physical or biological features are essential to the conservation of the Bi-State DPS of greater sage-grouse:

Space for Individual and Population Growth and for Normal Behavior

The Bi-State DPS of greater sage-grouse require large, interconnected expanses of sagebrush plant communities that contain a healthy understory composed primarily of native, herbaceous vegetation (Patterson 1952, p. 9; Knick *et al.* 2003, p. 623; Connelly *et al.* 2004, pp. 4–15; Pyke 2011, p. 532; Wisdom *et al.* 2011, entire). The Bi-State DPS uses a variety of habitats throughout its lifecycle, such as riparian and upland meadows, riparian areas with a shrub component, agricultural lands, and steppe dominated by native grasses and forbs. However, the Bi-State DPS of greater sage-grouse is considered a sagebrush obligate because of its near complete reliance on sagebrush as forage during the winter. In addition, the use of non-sagebrush habitats is contingent on the presence of sagebrush habitats in close proximity (Patterson 1952, p. 42; Braun *et al.* 1976, p. 168; Schroeder *et al.* 1999, pp. 4, 5; Connelly *et al.* 2000a, pp. 970–972; Connelly *et al.* 2004, pp. 4–1, 4–18, and references therein; Connelly *et al.* 2011b, p. 80; Casazza *et al.* 2011, p. 159).

The Bi-State DPS of greater sage-grouse moves seasonally among various sagebrush-dominated vegetation communities. These moves are driven by breeding activities, nest and brood-rearing site requirements (such as mesic meadows or spring habitats (see also the “Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements” section below)), seasonal changes in the availability of food resources, and response to weather conditions. Research findings have parsed the annual life cycle of greater sage-grouse into more or less unique seasonal habitat requirement categories, but in general annual habitat use can be categorized into three seasons (although these do not have to be mutually exclusive): (1) Breeding, (2) brood-rearing summer, and (3) winter, as well as the pathways that link these habitats together (Connelly *et al.* 2011b, pp. 71–80). Research on greater sage-grouse suggests the species exhibits strong site fidelity (loyalty to a particular area) to migration corridors and seasonal habitats, including breeding, nesting, brood-rearing, and wintering areas, even when a particular area may no longer be of value (Connelly *et al.* 2004, p. 3–1; Connelly *et al.* 2011b, p. 82). Available data suggest birds within the Bi-State DPS appear to conform with this understanding (Weichman 2012, unpublished data; P. Coates 2012, pers. comm.). Adult greater sage-grouse rarely switch inter-annual use among these seasonal habitats once they have been selected, limiting the species’ adaptability to habitat changes (Berry and Eng 1985, pp. 238–240; Fischer *et al.* 1993, p. 1039; Holloran and Anderson 2005, p. 749; Connelly *et al.* 2011b, p. 82).

Estimating an average annual home range size for the Bi-State DPS is difficult due to the large variation in sage-grouse movements both within and among populations.

These variations are related to the spatial availability of habitats required for seasonal use as well as individual bird behavior. The pattern and scale of annual movements among populations of greater sage-grouse within the Bi-State area, and the degree to which a given habitat patch can fulfill the species' annual habitat needs, are dependent on the arrangement and quality of habitats across the landscape. Habitat structure and quality vary spatially over the landscape; therefore, some areas may provide habitat for a single season, while other areas may provide habitat for one or more seasons (Connelly *et al.* 2011a; p. 59). In addition, plant community dynamics and natural or anthropogenic disturbance also result in a temporal component of habitat variability and suitability. Across the DPS, fine-scale habitat structure data on which to delineate seasonal habitats currently do not exist.

In the Bi-State area, greater sage-grouse home range size varies from 608 to 24,800 ha (0.9 to over 94.9 square miles) (Casazza *et al.* 2009, p. 8; U.S. Geological Survey (USGS) 2012, unpublished data). Variation occurs among individuals as well as among populations, presumably due in part to behavior and juxtaposition of seasonal habitats (Connelly *et al.* 2011a, p.59). Migratory movements (defined in Connelly *et al.* (2000a, p. 969) as moving more than 10 kilometers (km) (6 miles (mi)) between seasonal habitats) are uncommon among most individuals in the Desert Creek–Fales, Bodie, South Mono, and White Mountains PMUs; however, within these areas some individuals make seasonal movements that exceed this migratory definition (Casazza *et al.* 2009, p. 8). Further, recent research in the Pine Nut PMU has documented typical movements between breeding and brood-rearing summer habitats of greater than 40 km (24 mi), with

at least one individual moving in excess of 160 km (100 mi) from its lek of capture to summer and winter habitats (USGS 2012, unpublished data).

While not typical, the extensive migratory movements in the the Pine Nut PMU demonstrate the importance of migratory behaviors for the Bi-State DPS and the potential large-scale annual habitat requirements of the species. Migratory behavior is generally slow and meandering (flying or walking less than 1 km (0.6 mi) per day); however, more rapid movements are known and local migratory flights can occur (Dunn and Braun 1986, p. 89), including in the Bi-State area (USGS 2012, unpublished data). Migratory behavior in a population can have important ramifications on population dynamics (Berryman 2002, p. 441). Juvenile sage-grouse that moved farther distances to seasonal habitats had lower overall survival than did juveniles that moved relatively short distances (Beck *et al.* 2006, p. 1076). Thus, in populations where large movements are necessary to access seasonal habitat, an increased cost in terms of increased mortality may be incurred (Connelly *et al.* 2011a, p. 67).

Therefore, based on the species' year-round reliance on sagebrush and the various seasonal habitat requirements discussed above, we identify sagebrush plant communities and interspersed mesic areas of sufficient size and configuration to be a physical or biological feature essential to the conservation of this species.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Food resources used by the Bi-State DPS vary throughout the year because of seasonal changes in food availability and specific dietary requirements of adults and chicks. Greater sage-grouse diet is composed of nearly 100 percent sagebrush in the winter, while forbs, insects, and sagebrush are important dietary components during the remainder of the year (Wallestad *et al.* 1975, p. 629; Barnett and Crawford 1994, p. 117; Schroeder *et al.* 1999, p. 5; Gregg *et al.* 2006, pp. 475–476).

Pre-laying hens are particularly dependent on forbs and the insects supported by native herbaceous understories (Drut *et al.* 1994, pp. 173–175; Barnett and Crawford 1994, p. 117; Coggins 1998, p. 30). This pre-laying period is from approximately late-March to early April. While limited information is available on pre-nesting habitat selection, pre-laying habitats for female sage-grouse need to provide a diversity of vegetation including forbs that are rich in calcium, phosphorous, and protein to meet the nutritional needs of females during the egg development period (Barnett and Crawford 1994, p. 117; Connelly *et al.* 2000a, p. 970). During the pre-laying period, female sage-grouse select forbs that generally have higher amounts of calcium and crude protein than sagebrush (Barnett and Crawford 1994, p. 117).

Forbs and insects are essential nutritional components for Bi-State DPS sage-grouse chicks and for brood-rearing sage-grouse (Klebenow and Gray 1968, pp. 81–83; Peterson 1970, pp. 149–151; Johnson and Boyce 1991, p. 90; Connelly *et al.* 2004, p. 3–3; Dahlgren *et al.* 2006, p. 981; Aldridge and Boyce 2007, pp. 522–523; Casazza *et al.* 2011, pp. 158–159). During the first 3 weeks after hatching, insects are a critical food

source of chicks (Patterson 1952, p. 201; Klebenow and Gray 1968, p. 81; Peterson 1970, pp. 150–151; Johnson and Boyce 1990, pp. 90–91; Johnson and Boyce 1991, p. 92; Drut *et al.* 1994, p. 93; Pyle and Crawford 1996, p. 320; Fischer *et al.* 1996a, p. 194). Diets of 4- to 8-week-old greater sage-grouse chicks were found to have more plant material as the chicks matured (Peterson 1970, p. 151). Succulent forbs are predominant in the diet until chicks exceed 3 months of age, at which time sagebrush becomes a major dietary component (Klebenow 1969, pp. 665–656; Connelly and Markham 1983, pp. 171–173; Fischer *et al.* 1996b, p. 871; Schroeder *et al.* 1999, p. 5).

Decreased availability of forbs corresponds to a decrease in the probability of successfully fledging offspring, number of chicks per female, and brood size (Barnett and Crawford 1994, p. 117; Dahlgren *et al.* 2006, p. 981; Aldridge and Boyce 2007, pp. 522–523; Casazza *et al.* 2011, pp. 158–159). Population dynamics of greater sage-grouse are sensitive to adult survival, female reproductive success, and chick survival (Blomberg *et al.* 2012, pp. 11–12). Therefore, habitats that support sagebrush vegetation as well as a vegetative understory composed of native grasses and forbs are essential to key demographic rates.

In most areas within the range of Bi-State DPS, the herbaceous understory component of sagebrush plant communities dries out as summer progresses. Habitats used by greater sage-grouse in summer through late fall are typically more mesic than surrounding habitats. These areas are used primarily for foraging because they provide reliable sources of green, herbaceous vegetation when this resource is seasonally limited

on the landscape (Connelly *et al.* 2011b, pp. 76–77 and references therein). Specifically, these areas include: non-wooded riparian communities, springs, seeps, mesic upland meadows, or the margins of irrigated hay meadows and alfalfa fields (Casazza *et al.* 2011, pp. 162–163; Connelly *et al.* 2011b, pp. 76–77 and references therein). However, brood-rearing habitats are selected for and provide for an increased probability of successful recruitment when sites have adequate perennial forb cover and plant species richness, adequate meadow to sagebrush edge (ratio of perimeter to area), and are farther from woodlands (Casazza *et al.* 2011, pp. 162–163).

In winter, greater sage-grouse diet is almost exclusively sagebrush, although various species of sagebrush can be consumed (Rasmussen and Griner 1938, p. 855; Batterson and Morse 1948, p. 20; Patterson 1952, pp. 197–198; Wallestad *et al.* 1975, pp. 628–629; Remington and Braun 1985, pp. 1056–1057; Welch *et al.* 1988, p. 276; Welch *et al.* 1991, p. 462; Myers 1992, p. 55; Connelly *et al.* 2000a, p. 972). While limited data are available on winter habitat use in the Bi-State area, characteristics appear similar to those identified across the range of greater sage-grouse (P. Coates 2012, pers. comm.). Habitats used by greater sage-grouse during winter typically consist of 10 to 30 percent sagebrush cover and sagebrush heights of 25 to 35 centimeters (cm) (10 to 14 inches (in)), regardless of snow depth (Connelly *et al.* 2000a, p. 972). In all suitable winter habitats, the height of sagebrush must be tall enough so that leaves remain exposed when wintering areas are largely covered with snow (Connelly *et al.* 2011b, p. 79).

Based on the information above, we identify sagebrush plant communities that

contain herbaceous vegetation consisting of a diversity and abundance of forbs, insects, and grasses that fulfill all of the Bi-State DPS's seasonal dietary requirements to be a physical or biological feature essential to the conservation of this DPS. We also identify non-sagebrush habitats located adjacent to sagebrush plant communities that are used by sage-grouse for foraging during seasonally dry periods to be a physical or biological feature essential to the conservation of this DPS. These habitats are generally more mesic than surrounding habitat, and include wet meadows, riparian areas, and irrigated pastures.

Cover or Shelter

Predation is the most commonly identified cause of direct mortality for greater sage-grouse during all life stages and the species relies on sagebrush and herbaceous vegetation yearlong for escape and hiding cover (Schroeder *et al.* 1999, p. 9; Connelly *et al.* 2000b, p. 228; Connelly *et al.* 2011a, p. 66). While limited data are available on specific predators in the Bi-State area, known and potential predators of adult birds include golden eagle (*Aquila chrysaetos*), coyote (*Canis latrans*), American badger (*Taxidea taxus*), and bobcat (*Felis rufus*) (Hartzler 1974, pp. 532–536; Schroeder *et al.* 1999, pp. 10–11; Schroeder and Baydack 2001, p. 25; Rowland and Wisdom 2002, p. 14; Hagen 2011, p. 97). Most raptor predation of greater sage-grouse is on juveniles and adult age classes during the breeding and late brood-rearing periods when birds are more conspicuous and associated with more sparsely vegetated sites (Hagen 2011, p. 96). Juvenile greater sage-grouse also are killed by common ravens (*Corvus corax*), American

badgers, coyotes, and weasels (*Mustela* spp.) (Braun 1995, entire; Schroeder *et al.* 1999, p. 10). Nest predators in the Bi-State area may include badgers, weasels, coyotes, common ravens, American crows (*Corvus brachyrhynchos*), magpies (*Pica* spp.), and domestic cows (*Bovus* spp.) (Coates *et al.* 2008, pp. 425–426). Coates (2012, pers. comm.) suggests that common ravens are likely the most prolific nest predator in the Bi-State area.

While greater sage-grouse in the Bi-State DPS are depredated by a variety of predators across all life stages, they are not considered primary-prey for any one predator species. The top predators in the Bi-State area (i.e., golden eagles, coyotes, bobcats, and common ravens) are considered generalists and focus more heavily on small mammals.

Nest predation is influenced by the amount of cover surrounding the nest (Gregg *et al.* 1994, p. 164; Braun 1995, pp. 1–2; DeLong *et al.* 1995, p. 90; Braun 1998, p. 149; Coggins 1998, p. 30; Connelly *et al.* 2000a, p. 975; Schroeder and Baydack 2001, p. 25; Coates and Delehanty 2008, p. 636; Kolada *et al.* 2009b, p. 1343). Females actively select nest sites with the presence of big sagebrush (*Artemisia tridentata* Nutt. ssp.), grass, and forb cover (Connelly *et al.* 2000a, p. 971), and nesting success of greater sage-grouse is positively correlated with these qualities (Schroeder and Baydack 2001, p. 25; Hagen *et al.* 2007, p. 46; Kolada *et al.* 2009b, p. 1343). In general, vegetation characteristics of successful nest sites include sagebrush canopy cover of greater than 15 percent, sagebrush heights of 30 to 80 centimeters (cm) (11.8 to 31.5 in), grass and forb heights of 18 cm (7.1 in), and grass and forb cover of greater than 15 percent (Connelly *et*

al. 2000a, p. 977). While cover (canopy cover or shrubs, and understory cover or herbaceous plants) positively influences nesting success, the most important type of cover appears variable across the range of the greater sage-grouse (Connelly *et al.* 2000a, p. 971; Coates 2007, p. 148). In the Bi-State area, shrub canopy cover appears to be most influential to both nest-site selection and nesting success (Kolada *et al.* 2009a, p. 1336; Kolada *et al.* 2009b, p. 1343).

Furthermore, vegetation other than sagebrush (i.e., understory vegetation and other herbaceous cover) have a significant positive impact on nest success (Kolada *et al.* 2009b, p. 1343). While not readily apparent in the Bi-State area (Kolada *et al.* 2009b, p. 1344), both understory cover and height has been shown to influence nest success across the range of the greater sage-grouse (Gregg 1994, p. 164; Hagen *et al.* 2007, p. 46). Additionally, reduced herbaceous cover for young chicks can increase their rate of predation (Schroeder and Baydack 2001, p. 27; Aldridge and Boyce 2008, p. 402). These studies taken collectively indicate the importance of sufficient cover to nest and brood success of sage-grouse in the Bi-State area.

Fragmentation of large, intact habitats into smaller units due to anthropogenic or natural causes has been implicated to affect the Bi-State DPS's susceptibility to mortality through predation. Local attraction of common ravens to nesting females may be facilitated by loss and fragmentation of native shrublands, which increases exposure of nests to potential predation (Aldridge and Boyce 2007, p. 522; Bui 2009, p. 32; P. Coates 2012, pers. comm.). Reduction in patch size and diversity of sagebrush habitat, and

increased edge, as well as the construction of fences, power lines, and other infrastructure also are likely to encourage the presence of the common raven (Coates *et al.* 2008, p. 426; Bui 2009, p. 4). Greater sage-grouse are adapted to minimize predation by cryptic plumage and behavior (Hagen 2011, p. 96). Because sage-grouse are prey, predation will continue to have an effect on the Bi-State DPS; however, where habitat is not limited and is of good quality, predation appears to be less influential on population demographic rates (Coates 2007, pp. 154, 155; Hagen 2011, p. 100). Landscape fragmentation, habitat degradation, and human populations have the potential to increase predator populations through increasing ease of securing prey and subsidizing food sources and nest or den sites. Thus, otherwise suitable habitat may, in fact, act as a population sink, whereby predation affects mortality more quickly than the beneficial aspects of the habitat can affect recruitment (Aldridge and Boyce 2007, p. 517). Most sage-grouse research has failed to quantify predation rates in relation to habitat structure at a landscape level. Thus, while it is not currently possible to completely understand the relationships among habitat structure, sage-grouse demographic rates, and predator communities, available information suggests fragmentation of habitat can facilitate an increase in predation rates.

Bi-State DPS of greater sage-grouse use sagebrush plant communities during the winter season for thermal cover and to meet nutritional needs. Sagebrush stand selection in winter is influenced by snow depth and available literature suggests sagebrush canopy cover should be greater than 10 percent and shrubs should have at least 25 cm exposed above the snow (Patterson 1952, pp. 188–189; Connelly 1982 as cited in Connelly *et al.* 2000a, p. 980). In some areas, topography influences sagebrush stand selection (Beck

1977, p. 22; Crawford *et al.* 2004, p. 5). Winter sagebrush use areas are associated with drainages, ridges, or southwest aspects with slopes less than 15 percent (Beck 1977, p. 22). Lower, flat areas and shorter sagebrush along ridge tops provide roosting areas. In extreme winter conditions, greater sage-grouse will spend nights and portions of the day burrowed into “snow burrows” (Back *et al.* 1987, p. 488), and we expect the Bi-State DPS to exhibit the same behavior. During severe winters in the Bi-State area, significant percentages of birds from the various PMUs can be highly concentrated in localized sites. In these conditions, tall, late-seral sagebrush stands are an especially important food source and in some instances birds have been observed digging through several inches of snow to access shrubs (Casazza *et al.* 2009, p. 33).

Therefore, based on the information above, we identify sagebrush plant communities consisting of adequate shrub and herbaceous structure to provide year-round escape and hiding cover, as well as areas that provide concealment of nests and broods during the breeding season, and winter season thermal cover to be a physical or biological feature essential to the conservation of this DPS. Quantitative information on cover can be found in the *Primary Constituent Elements for the Bi-State DPS* section, below.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

Lek Sites. Lek sites can be located on areas of bare soil, wind-swept ridges, exposed knolls, low-statured sagebrush communities, meadows, and other relatively open

sites with good visibility and low-vegetation structure (Connelly *et al.* 1981, pp. 153–154; Gates 1985, pp. 219–221; Klott and Lindzey 1989, pp. 276–277; Connelly *et al.* 2004, p. 3-7 and references therein). In addition, leks are usually located on flat to gently sloping areas of less than 15 percent grade (Patterson 1952, p. 83; Giezentanner and Clark 1974, p. 218; Wallestad 1975, p. 17; Autenrieth 1981, p. 13). Leks are often surrounded by denser shrub-steppe cover, which is used for escape, and thermal and feeding cover. Leks can be formed opportunistically at any appropriate site within or adjacent to nesting habitat (Connelly *et al.* 2000a, p. 970). However, adult male sage-grouse demonstrate strong yearly fidelity to lek sites (Patterson 1952, p. 91; Dalke *et al.* 1963, pp. 817–818), and some leks in the Bi-State area have been used since the 1950s. Across the entire Bi-State DPS, approximately 35 to 45 leks are considered active as of 2013. In general, lek habitat availability is not considered to be a limiting factor for sage-grouse (Schroeder 1997, p. 939).

Nesting Habitat. Greater sage-grouse typically select nest sites under sagebrush cover with some forb and grass cover, and successful nests are found in areas with higher shrub density and greater forb and grass cover than unsuccessful nests (Connelly *et al.* 2011b, p. 73). While the importance of nesting cover remains apparent in the Bi-State area, local data suggest slight deviations from the generally accepted standards for the greater sage-grouse, which were largely derived from research conducted outside the southern Great Basin. Specifically, Kolada *et al.* (2009a, p. 1336; 2009b, p. 1343) found that nesting success improved when nesting habitat contained greater than 20 percent sagebrush canopy cover and greater than 40 percent total shrub cover while shrub height

did not appear to influence nesting success. This canopy cover standard in the Bi-State area is generally greater than those reported elsewhere across the range of the species. Additionally, there is currently little support in the Bi-State area for a positive influence of understory cover and height on either nest site selection or nest success (Kolada *et al.* 2009a, p. 1336; Kolada *et al.* 2009b, p. 1343). Similar findings are apparent in other locations in Nevada, but these investigations also suggest a trade-off between overstory and understory cover (Coates and Delehanty 2010, pp. 245–246). This implies that the need for understory cover diminishes as overstory cover increases, and vice versa. Thus, while shrub canopy and grass cover provide concealment for sage-grouse nests and young and are critical for reproductive success, the composition of these cover components appears to vary regionally (Barnett and Crawford 1994, pp. 116–117; Gregg *et al.* 1994, pp. 164–165; DeLong *et al.* 1995, pp. 90–91; Connelly *et al.* 2004, p. 4-4, Kolada *et al.* 2009a, p. 1336; Kolada *et al.* 2009b, p. 1343). In the southern Great Basin and in the Bi-State area specifically, there is strong support for the importance of greater shrub canopy cover on nesting success.

Female greater sage-grouse exhibit strong fidelity to nesting locations (Lyon 2000, p. 20; Connelly *et al.* 2004, pp. 4-5; Holloran and Anderson 2005, p. 747). Interannual distances between nests are frequently less than 1 km and often much less than this (Connelly *et al.* 2011b, p. 74 and references therein). Additionally, re-nesting attempts are also frequently in close proximity to the original nest (Weichman 2012, unpublished data).

Brood-rearing Habitat. Early brood-rearing habitat is found close to nest sites (Connelly *et al.* 2000a, p. 971), although individual females with broods may move large distances (Connelly 1982, as cited in Connelly *et al.* 2000a, p. 971). These sites typically contain a greater amount of perennial forbs, with horizontal and vertical structural diversity that provides an insect prey base and herbaceous forage for newly hatched chicks but additionally for pre-laying and nesting hens (Schroeder *et al.* 1999, p. 11; Connelly *et al.* 2000a, p. 971; Connelly *et al.* 2004, pp. 4-5-4-8; Casazza *et al.* 2011, pp. 158–159). By mid-summer and into early fall, birds move to mesic sagebrush plant communities that continue to provide green forbs. Casazza *et al.* (2011, pp. 158–163) found that sage-grouse in the Bi-State area with broods selected areas with increased plant species richness, greater forb cover, and increased meadow edge, and they avoided areas in proximity to trees (e.g., riparian sites, conifer encroached sites). While broods are known to utilize edges of hay meadows, data indicate that small, irregularly shaped meadows are of greater importance to broods than are large agricultural fields (Casazza *et al.* 2011, p. 163). However, due to relatively limited meadow habitat in the Bi-State area, the edges of irrigated agricultural fields are likely important in brood production.

Therefore, based on the information above, we identify sagebrush plant communities with the appropriate shrub and herbaceous vegetation structure to meet all the needs for all the Bi-State DPS of greater sage-grouse reproductive activities (including lekking, nesting, and brood-rearing) to be a physical or biological feature essential to the conservation of this DPS. Quantitative information on appropriate levels of vegetation structure and composition can be found in the *Primary Constituent*

Elements for the Bi-State DPS section, below.

Habitats Protected from Disturbance or Representative of the Historical, Geographical, and Ecological Distributions of the Species

Greater sage-grouse in the Bi-State area historically occurred from at least the Pine Nut Mountains area to south of the Mono County and Inyo County border near Bishop, California. Additionally, there are areas that are presumed to have been historically occupied that are no longer occupied and are now unsuitable for sage-grouse occupancy (i.e., Smith Valley, Gardnerville, and Bridgeport). Suitable habitat for the Bi-State DPS within the geographic area currently occupied by the species is approximately 590,184 ha (1,458,381 ac) (Service 2013a, Table 1 p. 20). The remaining habitat within the Bi-State area is fragmented, resulting in varying degrees of isolation among local breeding populations. Many of these fragmented areas serve as unused corridors/sites between seasonal habitats for a given population of sage-grouse contained within the Bi-State DPS. These corridors are a physical or biological feature essential to the conservation of this DPS based on greater sage-grouse research, which suggests that sage-grouse exhibit strong site fidelity (loyalty to a particular area) to migration corridors and seasonal habitats, including breeding, nesting, brood-rearing, and wintering areas, even when a particular area may seemingly no longer be of value (Connelly *et al.* 2004, p. 3–1; Connelly *et al.* 2011b, p. 82)

The currently suitable sagebrush plant communities and the intervening or adjacent fragmented areas (including corridors/sites between seasonal habitat areas) that are proposed for designation contain physical and biological features that are representative of the historical and geographical distribution of the Bi-State DPS. We believe the currently unused corridors/sites that contain plant communities (primarily woodland encroached sites that are not suitable for use) that are proposed for designation were all likely historically used by the DPS and also represent historic biological and ecological distribution within the the DPS's present range. These corridors/sites are intermixed within suitable habitat areas currently utilized by the Bi-State DPS during various life stages, as described above. These corridors/sites are limiting the extent of sagebrush habitat throughout the current range of the DPS, especially in the PMUs with the smallest populations (i.e., Pine Nut, Mount Grant, Desert Creek-Fales, and White Mountain PMUs), and are creating varying degrees of isolation among local breeding populations. Restoration of these corridors/sites can facilitate movements among populations and allow the DPS to recovery its historical distribution within its present range. To inform our decision on specific locations of these corridors/sites, we used the 2012 Bi-State Action Plan (Bi-State TAC 2012a, entire). The Bi-State Action Plan identifies areas for possible restoration activity within the present range of the species that would improve overall habitat quality and quantity and provide improved connectivity among local breeding populations across the Bi-State DPS.

Therefore, based on the information above, we identify corridors/sites that currently contain unsuitable/unused plant communities that are interspersed with

sagebrush habitats that exhibit one or more of the physical or biological features described above, to be a physical or biological feature essential to the conservation of the Bi-State DPS. Once special management designed to improve the condition of these interspersed corridors/sites has been implemented, they will help ensure long-term conservation of the DPS, and most importantly provide connectivity between currently fragmented areas.

Climate Change

Climate change projections in the Great Basin suggest a hotter and stable-to-declining level of precipitation, and a shift in precipitation events to the summer months; fire frequency is expected to accelerate, fires may become larger and more severe, and fire seasons will be longer (Brown *et al.* 2004, pp. 382–383; Neilson *et al.* 2005, p. 150; Chambers and Pellant 2008, p. 31; Global Climate Change Impacts in the United States 2009, p. 83). With these projections, drought (which is a natural part of the sagebrush ecosystem) is likely to be exacerbated.

Specifically within the Bi-State area, we anticipate climate change will act synergistically with other impacts to the Bi-State DPS to further diminish habitat, including features such as water, food, cover or shelter, and sites for breeding and reproduction. Predicting the impact of global climate change on sage-grouse populations is challenging due to the relatively small spatial extent of the Bi-State area. It is likely that vegetation communities will not remain static and the amount of sagebrush shrub

habitat will decrease. Further, increased variation in drought cycles due to climate change will likely place additional stress on the populations. However, while it is reasonable to assume the Bi-State area will experience vegetation changes into the future, we do not know with precision the nature of these changes or ultimately the effect this will have on the Bi-State DPS. Regardless, we anticipate the area will likely become generally less suitable to invasion by *Bromus tectorum* (cheatgrass). It is similarly likely that the current extent of suitable shrub habitat (e.g., areas for cover, shelt, breeding, and reproduction) will decrease, as the conditions that make the reduction in cheatgrass possible also suggest a less suitable climate condition for sagebrush and improved suitability for woodland and drier vegetation communities, which are not favorable to sage-grouse in the Bi-State DPS. For additional discussion on this topic, see the “Climate Change” section of the proposed listing rule published elsewhere in today’s **Federal Register**.

Primary Constituent Elements for the Bi-State DPS

According to 50 CFR 424.12(b), we are required to identify the physical or biological features essential to the conservation of the Bi-State DPS in areas occupied at the time of listing, focusing on the features’ primary constituent elements (PCEs). We consider primary constituent elements to be those specific elements of the physical or biological features that provide for a species’ life-history processes and are essential to the conservation of the species.

We only consider areas as critical habitat if they meet the “Landscape-scale Primary Constituent Element” (PCE 1) because small, isolated patches of sagebrush do not support the Bi-State DPS. If an area meets the landscape scale requirement, then a particular site is considered critical habitat if it contains one or more of the “Site-scale Primary Constituent Elements” (PCEs 2 through 4); Landscape scale may also contain the plant communities discussed above.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species’ life-history processes, we determine that the PCEs specific to the Bi-State DPS of greater sage-grouse are:

Landscape-scale Primary Constituent Element

Primary Constituent Element 1—Areas with vegetation composed primarily of sagebrush plant communities of sufficient size and configuration to encompass all seasonal habitats for a given population of greater sage-grouse, or facilitate movements within and among populations. This includes former sagebrush communities in specific locations that are currently primarily woodland encroached sites that potentially provide connectivity between populations.

Site-scale Primary Constituent Elements

Primary Constituent Element 2—Breeding habitat composed of sagebrush plant

communities with structural characteristics within the ranges described in Table 1, below.

Habitat structure values are average values.

Table 1—Bi-State DPS of greater sage-grouse structural guidelines for breeding habitat.

Vegetation Variable	Amount of Occurrence in the Habitat
Sagebrush Canopy Cover	>20 percent
Non-sagebrush Canopy Cover	>20 percent
Total Shrub Canopy Cover	>40 percent
Sagebrush Height	>30 cm (12 in)
Perennial Grass Cover	No less than 5 percent but >10 percent if total shrub cover <25 percent
Annual Grass Cover	<5 percent
Forb Cover	>10 percent
Grass/Forb Height	>18 cm (7 in)

Primary Constituent Element 3—Brood-rearing habitat composed of sagebrush plant communities and mesic habitats used primarily in the summer to late fall season. These sites include, but are not limited to, riparian communities, springs, seeps, and mesic meadows with structural characteristics within the ranges described in Table 2, below.

Table 2—Bi-State DPS of greater sage-grouse structural guidelines for brood-rearing habitat.

Vegetation Variable	Amount of Occurrence in the Habitat
Sagebrush Canopy Cover	10 to 25 percent
Total Shrub Canopy Cover	14 to 25 percent
Sagebrush Height	>30 cm (12 in)
Perennial Grass Cover	>7 percent
Perennial Forb Diversity	>5 species present
Forb Cover	>7 percent
Grass/Forb Height	18 cm (7 in)
Meadow Edge (ratio perimeter to area)	>0.015
Species Richness	>5 species

Primary Constituent Element 4—Winter habitat composed of sagebrush plant communities with sagebrush canopy cover greater than 10 percent and sagebrush height of greater than 25 cm (9.8 in) above snow level.

For the PCEs 2 through 4, we adopt the values from the literature on greater sage-grouse, but we modify them where available with specific research conducted in the Bi-State area and southern Great Basin. These data combined provide structural habitat values for Bi-State DPS of greater sage-grouse in all seasonal habitats. Source data include structural vegetation data collected in the breeding season (Connelly *et al.* 2000a; Hagen *et al.* 2007; Kolada *et al.* 2009a; Kolada *et al.* 2009b; Coates and Delehanty 2010; Blomberg *et al.* 2012), summer-fall (Casazza *et al.* 2011; Coates *et al. in prep.* a), and

winter (Connelly *et al.* 2000a; Coates *et al. in prep.* b). To the greatest extent possible, these structural habitat values are representative of the southern Great Basin and the Bi-State area specifically, and reflect the shrub structure, understory structure, and understory composition selected for by greater sage-grouse in this region. As such, these values are based on the most current and comprehensive assessment of the Bi-State DPS habitat structure. We consider an area critical habitat if its average vegetation values are within the values for the majority of structural categories for any given PCE (see Tables 1 and 2, above).

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. All units proposed for designation as critical habitat, as described below, require some level of management to address the current and future threats to the physical and biological features essential to the conservation of Bi-State DPS of greater sage-grouse. In all of the described units, special management may be required to ensure that the habitat is able to provide for the biological needs of this DPS.

A detailed discussion of the current and future threats to the Bi-State DPS of greater sage grouse can found in the Species Report available at <http://www.regulations.gov> under Docket No. FWS–R8–ES–2013–0042 and summarized

in the proposed listing rule to list the species as threatened, which is published elsewhere in today's **Federal Register**, in the section entitled *Summary of Factors Affecting the Species*. In general, the features essential to the conservation of the Bi-State DPS may require special management considerations or protection to reduce the following individual threats and their interactions: The spread of invasive plant species and associated changes in sagebrush plant community structure and dynamics; wildfire and altered fire regime; residential and commercial development, including associated land-clearing activities for the construction of access roads, utilities, and fences; increased recreational use of roads and trails; the proliferation of predators; improper grazing management; and other activities that result in the loss or degradation of sagebrush plant communities. The largest, overarching concern to the Bi-State DPS is multiple threats acting upon the landscape that are resulting in habitat fragmentation. The aforementioned activities are having direct and indirect effects on the birds' habitat and behavior, and are cumulatively and individually increasing habitat fragmentation.

The physical and biological features contained within the units designated as critical habitat may require special management considerations or protection to address the threats mentioned above. Based on our analysis of threats to the Bi-State DPS of greater sage-grouse, management activities that could ameliorate these threats include, but are not limited to:

(1) Comprehensive land-use planning and implementation that prevents a net decrease in the extent and quality of the DPS's habitat through the prioritization and

protection of habitats and monitoring; protection of lands by fee title acquisition or the establishment of permanent conservation easements;

(2) Management of recreational use to minimize direct disturbance and habitat loss;

(3) Control of nonnative, invasive plants and native, invasive plants to reduce further habitat loss and reduce the potential for wildfires;

(4) Management of domestic and wild ungulate use to ensure the suitable sage-grouse habitat meets or exceeds the structural habitat components required by sage-grouse;

(5) Monitoring and management of predator communities to determine impacts and help reduce potential predation;

(6) Coordinated and monitored habitat restoration or improvement projects to increase the amount of suitable habitat, particularly within fragmented areas and migration corridors; and

(7) Implementation of wildfire suppression, particularly in big sagebrush plant associations, to reduce further loss of big sagebrush communities that sage-grouse rely on for multiple life stages.

Such special management activities may be required to protect the physical and biological features essential to the conservation of the DPS, and support the conservation of the DPS by preventing or reducing the loss, degradation, and fragmentation of sagebrush landscapes. Additionally, management of critical habitat features can increase the amount of suitable habitat and enhance connectivity among sage-grouse populations in the Bi-State area through the restoration of lands that were previously composed of sagebrush plant communities. The limited extent of sagebrush habitat throughout the DPS's current range (as well as the significantly fragmented nature of the remaining sagebrush habitat) emphasizes the need for special management of these corridors/sites for the Bi-State DPS' use, thus potentially providing unfragmented habitat needed to survive and recover.

In some cases, continuing current land management practices may be appropriate and beneficial for the Bi-State DPS. For instance, continued irrigation and maintenance of hay and alfalfa fields on private lands near sagebrush habitats may help provide or enhance brood-rearing, mesic habitats for the Bi-State DPS. We acknowledge the ongoing and proposed conservation efforts of many entities across the range of the Bi-State DPS, such as the Natural Resource Conservation Service (NRCS) Sage Grouse Initiative (<http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>), that include many partners to implement conservation actions. We are currently coordinating with Federal agencies to ensure a seamless continuation of conservation practices if final rules are published for a listing determination and critical habitat designation.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied at the time of listing that contain the features essential to the conservation of the species. If, after identifying these specific areas, a determination is made whether these areas are inadequate to ensure conservation of the species, in accordance with the Act and our implementing regulations at 50 CFR 424.12(e), we then consider whether designating additional areas—outside of the geographical area currently occupied—are essential for the conservation of the species. As a result of this analysis, we are proposing to designate critical habitat within the geographical area occupied by the species at the time of listing (currently occupied) on which are found those physical or biological features essential to the conservation of the DPS and which may require special management considerations or protection. Some of the units we are proposing to designate as critical habitat contain corridors/sites that are currently unsuitable for use because of woodland encroachment. These corridors/sites are interspersed within suitable habitat that is currently used by the DPS. These sites provide essential connectivity corridors and habitat extent necessary for the conservation and recovery of the DPS (see the Physical or Biological Features section above). Once special management designed to improve the condition of these interspersed corridors/sites has

been implemented, they will help ensure long-term conservation of the DPS and provide connectivity between currently fragmented areas. We are not proposing to designate specific areas outside the geographical area currently occupied by the DPS.

We delineated the critical habitat unit boundaries as follows:

We based our identification of lands that contain physical and biological features essential to the conservation of the Bi-State DPS of greater sage-grouse on polygons delineated and defined by the Bi-State TAC during the development of the 2012 Bi-State greater sage-grouse Preliminary Priority Habitat (PPH) Map (Bi-State TAC 2012b), and a map product depicting occupied habitat developed by the Bureau of Land Management (BLM) in conjunction with the U.S. Forest Service in 2008 (BLM 2008). The Bi-State TAC is comprised of biologists representing the California Department of Fish and Wildlife (CDFW), Nevada Department of Wildlife (NDOW), BLM, the U.S. Forest Service, NRCS, USGS, and our offices (i.e., the Service). Both of these products (i.e., the PPH map and BLM map) largely correlate with one another, although the combined map encompasses more area than either product individually. The PPH map developed in 2012, was largely informed by Resource Selection Function (RSF) equations. RSFs are ranked habitat suitability factors that predict what areas an animal will use or avoid. We consider polygons derived through modeling RSFs to be the area currently suitable for sage-grouse in the Bi-State area. RSFs predict suitable habitat and thus likely overestimate the currently utilized habitat; however, a significant amount of sage-grouse population and habitat use data specific to the Bi-State area were used to develop these

data layers, thus resulting in a high-quality mapping product for use as the best available information. Ground-truthing of many of these areas confirms this mapping effort is accurate for predicting use by sage-grouse (Coates 2012, pers. comm.). Thus, we consider the polygons delineated through this process to be currently occupied. The 2008 BLM map was informed by the delineation of existing vegetation and expert opinion, and similarly we consider the polygons delineated through this process to be currently suitable habitat in this proposal. Therefore, combining the PPH map derived by RSFs and the 2008 BLM map contributes to our understanding of what constitutes currently suitable and potentially usable habitat.

RSFs are a data-driven approach used to identify suitable habitat. The RSF process used readily available, broad-scale, vegetation maps; more than 7 years of radio telemetry data; and on-the-ground vegetation data collected from across the range of the Bi-State DPS. Specifically, the approach used to identify the critical habitat units includes the following steps:

(1) A land cover map was developed for Nevada and California. This map is a synthesis of multiple, existing, broad-scale, vegetation mapping products (e.g., SynthMap, LANDFIRE, SageStitch, FRAP). Additional map layers were developed for environmental factors thought to be important to the Bi-State DPS, including maps of pinyon-juniper vegetation (dominated by *Pinus edulis* (pinyon pine) and various *Juniperus* (juniper) species that can encroach upon, infill, and eventually replace sagebrush habitat) cover classes used as surrogates for phases of encroachment,

topographic variables (i.e., elevation, ruggedness, and slope), agricultural areas, and anthropogenic factors (i.e., urbanization, roads, and recreation).

(2) RSFs were developed by modeling the relative probability of occurrence as a function of different environmental factors. These factors consisted of vegetation types, pinyon-juniper cover classes, agricultural areas, elevation, ruggedness, slope, roads, recreation, and urbanization. The factors were measured at multiple spatial scales that reflect movement patterns of the Bi-State DPS. The modeling process contrasted these environmental factors for sites used by Bi-State DPS of greater sage-grouse (which included more than 12,500 individual sage-grouse telemetry locations) to available sites (which were randomly generated locations distributed throughout each PMU).

Contrasting the environmental factors in areas known to be used by the species versus areas available provided information about what factors (e.g., urbanization, pinyon-juniper woodland sites) correlated with the Bi-State DPS's selection or avoidance of a specific location. The Pine Nut PMU was analyzed separately from the other five PMUs because the population within this PMU exhibits strong differences in behavior and influential environmental factors compared to other greater sage-grouse populations in the Bi-State area.

(3) RSFs were applied to the map layers developed in Step 1 to calculate an overall probability of use per pixel. This created a single habitat suitability map and resulted in a surface of predicted use by sage-grouse across the range of the Bi-State DPS. This surface was represented by probability values that ranged across a continuous

spectrum of 0.0 to 1.0.

(4) To identify currently usable habitat, the values from the habitat suitability map were extracted for 1,300 independent sage-grouse telemetry point locations within the Bi-State area. These newly derived habitat suitability values are associated with areas known to be used by the Bi-State DPS based on independent telemetry point data. We then reclassified this data into binary values (i.e., suitable habitat and potentially unsuitable or less than suitable habitat) for each PMU.

(5) The raster cells classified as suitable habitat were converted to polygons and smoothed using a distance of 1 km (0.6 mi). This value was used because it was sufficiently coarse to alleviate pixilation associated with raster data sets but not overly coarse to where the resulting map altered significantly from the original layers. Thus, the resulting map provided a more easily interpretable layer conducive to management.

(6) All urban areas were digitized and based on model performance at multiple scales; large-bodied standing water areas and other areas that exceeded 1 square km (247 ac) were removed because they are not considered suitable habitat.

(7) A second independent telemetry data set (more than 1,000 points) was used to validate the modeling; greater than 99 percent of the telemetry points fell within the mapped PPH areas generated from the RSF. This step validated that this data-driven approach to identify suitable habitat performed well.

A spatially explicit habitat-suitability model developed for the Bi-State DPS (Bi-State Technical Team 2012, unpublished data) predicts the location of usable habitat within the current range of the Bi-State DPS. The best available data from modeling exercises (as discussed above in this section) includes roughly 590,184 ha (1,458,381 ac) of suitable habitat within the range of the DPS.

(8) To identify acres that are currently less than suitable (e.g., areas exhibiting less than optimal habitat conditions within the present range of the DPS that were either known or likely to be historically utilized), we examined information pertaining to potential woodland restoration sites identified in the 2012 Bi-State Action Plan (Bi-State TAC 2012a, pp. 90–95).

We identified potential habitat as unused habitats that could be suitable for occupation of sage-grouse if practical management was applied. These corridors/sites are most commonly former sagebrush areas overtaken by pinyon-juniper woodlands. To further refine these areas, we identified locations that are: (1) Contiguous with currently utilized habitat that occurs within the present range, (2) provide for connectivity between and within populations, and (3) identified within the 2012 Bi-State Action Plan. We consider the size and degree of isolation among various populations contained within the Bi-State DPS to be a significant conservation concern; therefore, regaining historical connectivity among populations is essential to the conservation of the species. The corridors/sites are all contained within the borders of the delineated PMUs.

(9) To match the approach adopted during the development of the RSF product, we adjusted the 2008 BLM map utilizing a similar process by converting the raster cells to polygons and smoothing the polygons using a distance of 1 km (0.6 mi). These three datasets were then merged together into a unified layer within a GIS.

(10) Utilizing the unified data layer, we identified small, isolated, and disjunct polygons that were not considered to meet the intent of the landscape-scale primary constituent element (PCE 1) and were not considered necessary for the recovery of the species. These polygons were removed from the dataset resulting in our proposed critical habitat map. We specifically request comments on this and other criteria described above.

As described in more detail in the Species Report (Service 2013a, pp. 17–29) and the proposed listing rule for the Bi-State DPS of greater sage-grouse (published elsewhere in today’s **Federal Register**), there are currently six PMUs delineated in the Bi-State area: (1) Pine Nut, (2) Desert Creek–Fales, (3) Bodie, (4) Mount Grant, (5) South Mono, and (6) White Mountains (see **Background** section above, and the **Background** section of the proposed listing rule published elsewhere in today’s **Federal Register**).

Proposed critical habitat units for the Bi-State DPS collectively contain relatively small and discrete populations that are needed to ensure resilience in the face of

environmental fluctuations and catastrophic events, and to ensure the continuation of evolutionary process (see “Species Information” section of the proposed listing rule published elsewhere in today’s **Federal Register**, and the “Current Range/Distribution and Population Estimates/Annual Lek Counts” section of the Species Report (Service 2013a, pp. 17–28). Thus, the units contain the physical and biological features that are essential to the conservation of the species. The corridors/sites that are currently experiencing woodland encroachment are contiguous with the suitable habitat, and are a feature that is essential to the conservation of the Bi-State DPS. These corridors/sites provide connectivity between the current populations and reduce habitat fragmentation, which in turn impacts sage-grouse population dynamics. Once special management designed to improve the condition of these corridors/sites has been implemented, they would provide needed connectivity among currently disjunct populations and additional habitat extent, thereby increasing overall habitat redundancy. The best available information indicates that, with proper protection and management, the proposed critical habitat units are sufficient to provide for the conservation of the species.

While there are six PMUs, we are proposing four units as critical habitat for the Bi-State DPS. Units are proposed for designation based on sufficient elements of physical or biological features being present to support the Bi-State DPS’s life-history processes. All units individually contain all of the identified elements of physical and biological features, and each unit as a whole supports multiple life-history processes.

We are proposing for designation of critical habitat lands that we have determined are within the geographical area occupied at the time of listing and contain the physical or biological features essential to the conservation of the DPS.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for the Bi-State DPS. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public at <http://www.regulations.gov> at Docket No. FWS–R8–ES–2013–0042, on our Internet sites (Reno Fish and Wildlife Office (<http://www.fws.gov/nevada/>) and Ventura Fish and

Wildlife Office (<http://www.fws.gov/ventura/>)), and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

Proposed Critical Habitat Designation

We are proposing to designate approximately 755,960 ha (1,868,017 ac) in four units as critical habitat for the Bi-State DPS of greater sage-grouse, all of which are considered currently occupied. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Bi-State DPS. The four units we propose as critical habitat correspond to the four populations recognized by the Western Association of Fish and Wildlife Agencies (WAFWA), which include: (1) Pine Nut, (2) North Mono Lake, (3) South Mono Lake, and (4) White Mountains. These units are contained within the PMU boundaries (which are identified on the maps in the **Proposed Regulation Promulgation** section of this proposed rule); however, the proposed North Mono Lake Unit (Unit 2) combines three PMUs (Desert Creek–Fales, Bodie, and Mount Grant PMUs) into a single unit. Approximately 75 percent (about 564,578 ha (1,395,103 ac)) of the area within the four units is currently suitable habitat and approximately 25 percent (about 191,381 ha (472,914 ac)) is contiguous with currently suitable habitat but is considered less than suitable for current use. Table 3 shows land ownership and approximate areas of the proposed designated areas for the Bi-State DPS.

TABLE 3—Proposed critical habitat units for the Bi-State DPS in Nevada and California. [Area estimates reflect all land within critical habitat unit boundaries.]

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Hectares (Acres)
1. Pine Nut	Tribal	10,401 (25,701)
	Federal	92,324 (228,137)
	State	4,822 (11,917)
	Private	14,197 (35,081)
Subtotal Unit 1		121,744 (300,836)
2. North Mono Lake	Tribal	16 (40)
	Federal	294,775 (728,404)
	State	3,374 (8,338)
	Local Agency	1,295 (3,200)
	Private	46,031 (113,744)
Subtotal Unit 2		345,491 (853,726)
3. South Mono Lake	Tribal	161 (398)
	Federal	138,905 (343,242)
	State	1,345 (3,323)
	Local Agency	13,312 (32,894)
	Private	7,750 (19,151)
Subtotal Unit 3		161,473 (399,008)
4. White Mountains	Tribal	521 (1,286)
	Federal	123,831 (305,994)
	Private	2,901 (7,167)
Subtotal Unit 4		127,252 (314,447)
Subtotal	Tribal	11,099 (27,425)
	Federal	526,128 (1,605,777)
	State	9,541 (23,578)
	Local Agency	14,607 (36,094)
	Private	70,878 (175,143)
GRAND TOTAL		755,960 (1,868,017)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of the four units and reasons why they meet the definition of critical habitat for the Bi-State DPS, below.

Unit 1: Pine Nut

The Pine Nut Unit consists of approximately 121,744 ha (300,836 ac) and is located in Mono and Alpine Counties, California, and Douglas, Lyon, and Carson City Counties, Nevada. The unit encompasses the Pine Nut Mountains and represents the

northern extent of the DPS. It extends from the Carson River south to the West Fork Walker River. The southwestern boundary extends into California encompassing Slinkard Valley near Woodford, California. Land ownership within this unit consists of approximately 92,324 ha (228,137 ac) of Federal land, 4,822 ha (11,917 ac) of State land, 10,401 ha (25,701 ac) of Washoe Tribe of Nevada and California tribal land, and 14,197 ha (35,081 ac) of private land. The Pine Nut Unit includes lands in the Humboldt-Toiyabe National Forest and lands managed by the Carson City District Office of the BLM. State lands within this unit include Slinkard/Little Antelope Valley Wildlife Area.

This unit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the DPS. This unit is important for the conservation of the DPS due to the redundancy and additional distributional extent it affords the remainder of the Bi-State DPS. The physical or biological features essential to the conservation of the Bi-State DPS in the Pine Nut Unit may require special management considerations or protection due to the presence of fire; woodland encroachment; nonnative, invasive species; urbanization and human disturbance; infrastructure; feral horses; predation; and additional localized and less severe impacts.

Unit 2: North Mono Lake

The North Mono Lake Unit consists of approximately 345,491 ha (853,726 ac) and is located in Alpine and Mono Counties, California and Lyon, Douglas, and Mineral

Counties, Nevada. The unit extends from southern Smith Valley, Nevada in the north to Mono Lake, California in the south, and the Wassuk Range in Nevada in the east to the foothills of the Sierra Nevada mountain range in the west. Land ownership within this unit consists of approximately 294,775 ha (728,404 ac) of Federal land, 3,374 ha (8,338 ac) of State land, 1,295 ha (3,200 ac) of local agency (County or City) lands, 16 ha (40 ac) of Bridgeport Paiute Indian Colony tribal lands, and 46,031 ha (113,744 ac) of private land. The North Mono Lake Unit includes lands in the Humboldt-Toiyabe National Forest (including Forest Service lands utilized for military readiness via a 40-year special use permit with the Marine Corps' Mountain Warfare Training Center), and BLM's Bishop Field Office and Carson City District Office. State lands within this unit include the Green Creek, East Walker River, Slinkard/Little Antelope Valley, and Pickel Meadow Wildlife Areas.

This unit is considered to be within the geographical area occupied by the DPS at the time of listing and contains the physical or biological features essential to the conservation of the DPS. The Bodie Hills population contained within this unit represents one of the two largest (core) populations within the Bi-State DPS and as such, the habitat in this unit is important for the conservation of the DPS. The Bodie Hills population harbors greater than 30 percent of the entire Bi-State DPS sage-grouse population, providing both resiliency and redundancy to the DPS. In addition, several peripheral populations in the Desert Creek-Fales and Mount Grant PMUs are contained within this unit and afford additional redundancy and distributional extent. The physical or biological features essential to the conservation of the Bi-State DPS in the North Mono

Lake Unit may require special management considerations or protection due to the risk posed by fire; woodland encroachment; infrastructure; urbanization; mineral and energy development; feral horses; nonnative, invasive species; human disturbance; and other localized and less severe threats.

Unit 3: South Mono Lake

The South Mono Lake Unit consists of approximately 161,473 ha (399,008 ac), and is located entirely within Mono County, California. The unit extends from Mono Lake in the north to Lake Crowley in the south, and from the Nevada and California border in the east to the foothills of the Sierra Nevada Mountains in the west. Land ownership within this unit consists of approximately 138,905 ha (343,242 ac) of Federal land, 1,345 ha (3,323 ac) of State land, 13,312 ha (32,894 ac) of local agency land, 161 ha (398 ac) of Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation (California), and 7,750 ha (19,151 ac) of private land. The South Mono Lake Unit includes lands in the Inyo National Forest and the BLM Bishop Field Office. The majority of City lands within this unit are owned by the City of Los Angeles and managed by the Los Angeles Department of Water and Power.

This unit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the DPS. The Long Valley population contained within this unit represents one of the two largest remaining populations within the Bi-State DPS and as such habitat in this unit is important for the conservation of the DPS. The Long Valley

population harbors approximately 30 percent of the entire Bi-State DPS sage-grouse population, providing both resiliency and redundancy to the DPS. The physical or biological features essential to the conservation of the Bi-State DPS in the South Mono Lake Unit may require special management considerations or protection due to the risk presented by fire, human footprint (e.g., urbanization (such as mesic areas for late sage-grouse brood-rearing), infrastructure, recreation), woodland expansion, and other localized and less severe threats.

Unit 4: White Mountains

The White Mountains Unit consists of approximately 127,252 ha (314,447 ac) and is located in Inyo and Mono Counties, California and Esmeralda and Mineral Counties, Nevada. The White Mountains Unit is situated in the southern extent of the Bi-State DPS's range. The unit extends from the Candelaria Hills and Truman Meadows areas in the north to California Highway 168 in the south, and from California Highway 6 in the west to the Silver Peak Range in Nevada. Land ownership within this unit consists of approximately 123,831 ha (305,994 ac) of Federal land, 521 ha (1,286 ac) of Death Valley Timbi-sha Shoshone tribal land, and 2,901 ha (7,167 ac) of private land. The White Mountains Unit includes lands in the Inyo and Humboldt-Toiyabe National Forests, and the Bishop, Tonopah, and Stillwater Field Offices of the BLM.

This unit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the

conservation of the DPS. This unit is important for the conservation of the DPS due to the redundancy, resiliency, and representation it affords the remainder of the Bi-State DPS. The population represents approximately 5 to 10 percent of the entire DPS. The unit remains generally remote and isolated and lacks many of the immediate anthropogenic stressors apparent in other portions of the DPS; thus the additional redundancy and resiliency afforded by this area may influence conservation of the entire DPS in the future. Additionally, this population has a unique genetic signature and occurs at high elevation on the extreme southwest portion of the DPS's range, thereby adding ecological and genetic representation not found elsewhere across the DPS's range. The physical or biological features essential to the conservation of the Bi-State DPS in the White Mountains Unit may require special management considerations or protection due to the presence of woodland expansion; urbanization; feral horses; nonnative, invasive species; fire; and limited population size among other more localized and less severe stressors.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In

addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not

affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other manmade structures because such lands lack physical and biological features necessary for greater sage-grouse. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed sites. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical and biological features in the adjacent critical habitat.

Likewise, due to past land uses, vegetation changes, or a number of other natural or manmade factors, some areas within the mapped proposed critical habitat may currently lack the site-specific physical and biological features (primary constituent elements) necessary to support bi-state DPS of greater sage-grouse (see section, Primary Constituent Elements for Bi-state DPS of Greater Sage-grouse). If critical habitat is designated, for actions involving lands that lack the primary constituent elements for this species, section 7 consultation as it relates to critical habitat would not be required.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director’s opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the “Adverse Modification” Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for the Bi-State DPS. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal

action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Bi-State DPS. These activities include, but are not limited to:

(1) Actions that would result in the loss of sagebrush overstory plant cover or height. Such activities could include, but are not limited to, the removal of native shrub vegetation by any means for any infrastructure construction project; direct conversion to agricultural land use; habitat improvement or restoration projects involving actions such as (but not limited to) mowing, brush-beating, disking, plowing, or prescribed burning; and fire suppression activities. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of sage-grouse in the Bi-State area, at least on a short-term basis.

(2) Actions that would result in the loss or reduction in native herbaceous understory plant cover or height; a reduction or loss of associated arthropod communities; or ground disturbance that would result in removal or depletion of surface and ground water resources that impact brood-rearing habitat. Such activities could include, but are not limited to, improper livestock grazing; application of herbicides or insecticides; prescribed burning and fire suppression activities; seeding of nonnative plant species that would compete with native species for water, nutrients, and space; groundwater pumping;

and water diversions for irrigation and livestock watering. These activities could eliminate or reduce the quality of the habitat necessary for the growth and reproduction of sage-grouse in the Bi-State area through a reduction in food quality and quantity, and increased exposure to predation.

(3) Actions that would result in the Bi-State DPS's avoidance of an area during one or more seasonal periods. Such activities could include, but are not limited to, the construction of vertical structures such as power lines, fences, communication towers, and buildings; motorized and non-motorized recreational use; and activities such as well drilling, operation, and maintenance, which would entail significant human presence, noise, and infrastructure. These activities could result in the direct and functional loss of habitat if sage-grouse avoid or reduce use of otherwise suitable habitat in the vicinity of these structures or concentrated activity centers throughout the Bi-State area.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an INRMP by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- (1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- (2) A statement of goals and priorities;
- (3) A detailed description of management actions to be implemented to provide for these ecological needs; and
- (4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: “The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

We consult with the military on the development and implementation of INRMPs for installations with listed species. We analyzed INRMPs developed by military installations located within the range of the proposed critical habitat designation for the Bi-State DPS to determine if they meet the criteria for exemption from critical habitat

under section 4(a)(3) of the Act. Department of Defense lands with a completed, Service-approved INRMP within the proposed critical habitat designation include the Hawthorne Army Depot. The Marine Corps' Mountain Warfare Training Center occurs outside of the proposed critical habitat boundary but conducts training via a 40-year special use permit on U.S. Forest Service lands within the proposed area (see discussion below under the "Exclusions Based on National Security Impacts" section). The Marine Corps does not currently have an INRMP; however, should the Marine Corps' Mountain Warfare Training Center complete an INRMP, we would conduct an analysis to determine if they meet the criteria for exemption from the final critical habitat designation under section 4(a)(3) of the Act.

Approved INRMPs

Hawthorne Army Depot, 5,421 ha (13,397 ac)

The Hawthorne Army Depot is located on lands in Mineral County surrounding the town of Hawthorne, Nevada, approximately 209 km (130 mi) southeast of Reno, Nevada, on the southern shore of Walker Lake. The 59,584-ha (147,236-ac) installation encompasses lands in the Wassuk Range, centered on Mount Grant, where overlap with the Bi-State DPS distribution occurs. The Hawthorne Army Depot's military mission is to test and demilitarize munitions, maintain equipment, provide high-desert training facilities for military units, and provide tenant support while maintaining ecosystem viability to support the military mission.

The U.S. Army's INRMP is a planning document that guides the management and conservation of natural resources under the installation's control, specifically to guide the natural resources management program from 2013 to 2018, and provide a solid foundation for Hawthorne Army Depot on which to build the program beyond 2018 (DOD 2013, p. ES-1). Implementing this INRMP will allow Hawthorne Army Depot to achieve its goal to ensure the sustainability to test and demilitarize munitions, maintain equipment, and provide tenant support while maintaining ecosystem viability (DOD 2013, p. ES-1). Compliance with this INRMP ensures that natural resource conservation measures and Army activities on Hawthorne Army Depot land are integrated and consistent with Federal stewardship requirements (DOD 2013, p. ES-1). The most recent INRMP (updated from previous versions) was approved by the Service on August 28, 2013 (DOD 2013, entire), is currently being implemented, and provides a conservation benefit to the Bi-State DPS. Approximately 5,421 ha (13,397 ac) of lands (occurring within the footprint of Unit 2) within this installation supports habitat currently occupied by the Bi-State DPS that provides a conservation benefit to the DPS.

The INRMP includes Bi-State DPS management as a high priority project, specifically by implementing conservation strategies as identified through continued multi-agency coordination. Hawthorne Army Depot's primary objective for managing special-status species (including the Bi-State DPS) is to: (1) Maintain conditions that buffer the effects of the military mission on the species and their habitat, (2) support monitoring efforts to document the health of species, and (3) enhance the habitats of the

species (DOD 2013, p. 3-17). Management actions that provide a conservation benefit to the Bi-State DPS (i.e., managing and increasing the population of and habitat quality for sage-grouse) include, but are not limited to:

- (1) Reducing population loss from poachers.
- (2) Improving habitat in the Mount Grant North Cat area by installing rock dikes or similar infrastructure to minimize snowmelt runoff and to create riparian habitat in the meadow area.
- (3) Possible removal of pinyon-juniper communities at higher elevations of Mount Grant to increase sage-grouse populations and minimize predation.
- (4) Preventing hunting on the installation. And
- (5) Implementing conservation strategies identified through multi-agency efforts (e.g., Bi-State Action Plan) (DOD 2013, pp. 3-17–3-18).

Based on the above considerations, and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the identified lands are subject to the Hawthorne Army Depot INRMP and that conservation efforts identified in the INRMP will provide a benefit to the Bi-State DPS. Therefore, lands within this installation are exempt from critical habitat designation under section 4(a)(3) of the Act. We are not including 5,421 ha (13,397 ac) of habitat in this proposed critical habitat designation because of this exemption.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus, the educational benefits of

mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide.

In the case of the Bi-State DPS, the benefits of critical habitat include public awareness of sage-grouse presence and the importance of habitat protection, and in cases where a Federal nexus exists, increased habitat protection for the Bi-State DPS due to the protection from adverse modification or destruction of critical habitat. In practice, a Federal nexus exists primarily on Federal lands or for projects undertaken by Federal agencies. Since the Bi-State DPS and its habitat primarily occur on Federal lands, we have been coordinating with Federal agencies on their efforts to conserve the Bi-State DPS, and we would anticipate a significant amount of coordination via section 7 consultations if the proposed listing and proposed critical habitat are finalized. The coordination with Federal partners conducted to date has resulted in multiple conservation plans or strategies for Federal lands (and to some extent on private lands) throughout the Bi-State area.

When we evaluate a management plan during our consideration of the benefits of

exclusion, we assess a variety of factors, including but not limited to, whether the plan is finalized, how it provides for the conservation of the essential physical or biological features, whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future, whether the conservation strategies in the plan are likely to be effective, and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Based on the information provided by entities seeking exclusion, as well as any additional public comments we receive, we will evaluate whether certain lands in the proposed critical habitat units are appropriate for exclusion from the final designation under section 4(b)(2) of the Act. If the analysis indicates that the benefits of excluding lands from the final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise her discretion to exclude the lands from the final designation.

We are considering excluding the following areas under section 4(b)(2) of the Act from the final critical habitat designation for the Bi-State DPS. Table 4 below provides approximate areas (ha, ac) of lands that meet the definition of critical habitat but are under our consideration for possible exclusion under section 4(b)(2) of the Act from the final critical habitat rule.

TABLE 4—Areas meeting the definition of critical habitat and areas being considered for exclusion from the critical habitat designation for the Bi-State DPS.

Unit	Area Considered for Exclusion	Areas Meeting the Definition of Critical Habitat, in Hectares (Acres)	Areas Being Considered for Exclusion, in Hectares (Acres)
Unit 1. Pine Nut	None	121,744 (300,836)	None
Unit 2. North Mono Lake	Department of Defense, Marine Corps Mountain Warfare Training Center	345,491 (728,404)	9,818 (26,262)
	Los Angeles Department of Water and Power		1,002 (2,478)
Unit 3. South Mono Lake	Los Angeles Department of Water and Power	161,473 (399,008)	14,533 (35,911)
Unit 4. White Mountains	None	127,252 (314,448)	None
TOTAL		755,960 (1,868,017)	25,353 (64,651)

However, we specifically solicit comments on the inclusion or exclusion of the areas shown in Table 4. In the paragraphs below, we provide an analysis of our considered exclusion of these lands under section 4(b)(2) of the Act.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors. Although the majority of lands in the proposed critical habitat are federally owned, private lands are also present in all four units. Federal lands include areas with mining leases, geothermal energy development, grazing permits, rights-of-way for utilities and telecommunications, and recreational uses. Several State-owned parcels are included in some units where hunting, wildlife viewing, and other recreational activities occur, and tribal lands are also included. The economic analysis will estimate the economic impact of a potential designation of critical habitat on these activities.

During the development of a final designation, we will consider economic impacts based on information in our economic analysis, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. Lands eligible for exclusion include those utilized by the Marine Corps (Mountain Warfare Training Center) for military readiness, as discussed above in Application of Section 4(a)(3) of the Act.

The Marine Corps' Mountain Warfare Training Center is located on lands in Mono County near Sonora Junction, California, approximately 160 km (100 mi) south of Reno, Nevada. The approximately 243-ha (600-ac) installation encompasses lands outside the range of the Bi-State DPS, but military training activities occur on U.S. Forest Service lands contained within our proposed critical habitat boundary. Training activities on U.S. Forest Service lands occur via a special use permit (Forest Service 2012a-d, entire). We have been in support of the requirements established under the special use permit and currently operating greater sage-grouse management direction. The Mountain Warfare Training Center is a training site for Marines preparing to serve in mountainous regions, with an emphasis on training for cold weather and high altitudes. Training activity primarily involves limited personnel pedestrian activities, helicopter landing and deployment sites, and vehicle exercises on established roads. Approximately 9,818 ha (26,262 ac) in Unit 2 of Forest Service land utilized by the Marine Corps for the Mountain Warfare Training Center supports habitat currently occupied by the Bi-State DPS that contains the physical and biological features essential to the conservation of the species, including nesting, brood-rearing, and wintering seasonal habitats.

While we do not have information currently indicating that these lands utilized by the Department of Defense for military readiness and the remaining lands within the proposed designation of critical habitat for the Bi-State DPS will have an impact on national security, we may consider excluding certain lands in the final rule. Consequently, the Secretary does not propose to exert her discretion to exclude any areas

from the final designation based on impacts on national security at this time. However, should the Marine Corps' Mountain Warfare Training Center or another entity identify impacts to national security that may result from designating critical habitat on lands owned, managed, or utilized by the Department of Defense, or on the remaining lands within the critical habitat footprint, we may consider excluding those lands in the final rule. Alternatively, should the Marine Corps' Mountain Warfare Training Center complete an INRMP, we would conduct an analysis to determine if it meets the criteria for exemption from the final critical habitat designation under section 4(a)(3) of the Act (see *Application of Section 4(a)(3) of the Act*, above).

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

Land and Resource Management Plans, Conservation Plans, or Agreements Based on Conservation Partnerships

We consider a current land management or conservation plan (HCPs as well as other types) to provide adequate management or protection if it meets the following criteria:

- (1) The plan is complete and provides a conservation benefit for the species and its habitat;
- (2) There is a reasonable expectation that the conservation management strategies and actions will be implemented for the foreseeable future, based on past practices, written guidance, or regulations; and
- (3) The plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology.

We believe that the Los Angeles Department of Water and Power's (LADWP's) conservation strategy (which includes development of an memorandum of understanding (MOU)), along with our ongoing partnership with this agency, fulfills the above criteria, and we are considering the exclusion of lands covered by this conservation strategy that provides for the conservation of the Bi-State DPS. We are requesting comments on the benefit to the Bi-State DPS from this conservation strategy (see **Information Requested** section above) for this considered exclusion. At this time, we are not proposing the exclusion of any areas in the proposed critical habitat for the Bi-State DPS.

Los Angeles Department of Water and Power (LADWP) Conservation Strategy

The LADWP owns and manages approximately 15,535 ha (38,389 ac) of the Bi-State DPS's habitat within the Bodie and South Mono PMUs (North Mono Lake Unit 2 and South Mono Lake Unit 3) in Mono County, California. The LADWP has been managing their lands for the conservation of the Bi-State DPS, including implementing measures that enhance the habitat and also reduce threats. Additionally, LADWP is developing an HCP that would provide a conservation benefit to the Bi-State DPS and its habitat. The activities we anticipate to be covered in the HCP are fire and weed (i.e., nonnative, invasive plants) management, livestock grazing, irrigated agriculture (i.e., irrigated pasture management), recreation, road maintenance and closures (i.e., infrastructure – roads), power production, and power transmission (i.e., infrastructure – power lines). Past and current beneficial conservation actions implemented to date include (but are not limited to) the following:

(1) Fire—A fire management plan has been implemented that emphasizes fire prevention and suppression, and follows guidelines developed by LADWP for lands in Inyo County (LADWP and Ecosystem Sciences 2010). This conservation strategy is important for protecting sagebrush communities (i.e., sage-grouse habitat) from its principle disturbance mechanism and preventing wildfires that can cause large-scale habitat loss that leads to fragmentation and isolation of sage-grouse populations. The wildland fire agencies in the area (i.e., CalFire, BLM, and Forest Service) and LADWP have an agreement in place to collaborate on suppressing fires in the region regardless of where the fire is located. If a wildfire starts on LADWP lands in sage-grouse habitat, the response will be a multi-agency effort to suppress the fire. This multi-agency effort

means that potentially fewer acres of sage-grouse habitat will be lost during a wildfire event. Additionally, the LADWP reduces the threat of wildfires through implementation of a no campfire/campstove policy outside established, permitted campgrounds, and implementation of temporary closures of key sage-grouse habitat use areas during the July 4th holiday.

(2) Nonnative, Invasive Plants—LADWP has licensed staff that treat noxious weeds. Active treatment of nonnative, invasive plants reduces the likelihood that invasive species will become established in and negatively impact sagebrush ecosystems by altering plant community structure and composition, hydrology, and other aspects of the sage-brush ecosystem on which sage-grouse in the Bi-State area rely.

(3) Energy Development—Although there are no plans for energy development on LADWP lands in sage-grouse habitat, any potential future proposals would consider impacts to the DPS and its habitat (which may result in impacts such as, but not limited to, loss of sagebrush habitat from structure development, reduced water supply in brood-rearing habitats, and sage-grouse behavioral impacts from increased human presence).

(4) Sage-brush Removal—Although sagebrush removal may have occurred in the past, there are no ongoing or future sage-brush removal projects planned on LADWP land. This is important to ensure adequate sagebrush habitat for sage-grouse occurs on LADWP lands.

(5) Grazing—All existing livestock grazing leases have a livestock grazing management plan with upland, riparian, and irrigated pasture management guidelines and monitoring. Approximately 60 percent (9,261 ha (22,884 ac)) of LADWP lands are located in the South Mono Lake Unit 3. Currently, there are no active livestock grazing leases on the remaining 40 percent (6,275 ha (15,505 ac)) of LADWP lands in the Mono Basin watershed, which is located in North Mono Lake Unit 2 and South Mono Lake Unit 3. The implementation of appropriate livestock grazing management plans on those LADWP lands grazed in the South Mono Lake Unit 3 (i.e., leased and grazed areas totaling 7,986 ha (19,734 ac), most of which is sage-grouse habitat) will prevent further loss of sagebrush habitat and/or the reduction of habitat quality for sage-grouse on LADWP lands.

(a) Upland Management—LADWP adopted BLM’s livestock forage utilization guidelines for all upland areas (i.e., areas permitted for grazing in the Owens River watershed) in potential sage-grouse habitat (i.e., maximum 40 percent use on perennial bunchgrasses). Additionally, monitoring is conducted using identical protocols to those adapted by the BLM Bishop Field office and NRCS to evaluate land management practices with a focus towards improving sage-grouse habitat.

(b) Riparian Management—Riparian pastures were created along the Upper Owens River, Convict Creek, McGee Creek and Mammoth Creek in the early 1990s with the goal of improving riparian habitat and fisheries (Hill *et al.* 2002, entire). For the past 13 years, livestock have grazed each riparian pasture once every three years. Grazing can

begin in June on whichever riparian pasture is most suitable at the time given current climatic conditions. Cattle will be removed from riparian pastures at the end of the grazing period or when the average utilization of herbaceous forage has reached 30 percent, whichever comes first. Monitoring conducted in riparian pastures includes utilization, fixed photopoints, permanent riparian monitoring transects, and channel cross-section monitoring.

(c) Irrigated Pasture Management—Lessees (in areas permitted for grazing activities in the Owens River watershed) are required to maintain irrigated pastures in good to excellent condition. Pastures are monitored and rated using NRCS’s *Guide to Pasture Condition* Scoring system (Cosgrove *et al.* 2001, entire). Pastures in good to excellent condition will continue to provide a diverse variety of forbs and insects during the sage-grouse brood-rearing period, whereas pastures in lower quality condition would be improved, which would benefit sage-grouse.

(6) Mining—There are no current or proposed areas of mining or reclamation occurring on LADWP land in sage-grouse habitat. Any future proposed mining projects would consider impacts to sage-grouse and their habitat, which can include, but is not limited to, loss of sagebrush habitat, water contamination, and invasion of nonnative species.

(7) Recreation—Recreation management follows the general guidelines and practices outlined in the Owens Valley Land Management Plan (LADWP and Ecosystem

Sciences 2010). These guidelines direct various recreational activities to reduce potential impacts to sage-grouse and their habitat, including, but not limited to, requiring permission for individual and group events, developing sage-grouse lek-viewing guidelines through cooperation with BLM, and closing redundant roads or rerouting roads that exist in key sage-grouse habitat areas (e.g., Long Valley).

(8) Urban Development— LADWP policy does not promote new urban or agricultural development in the Plan Area (the area covered in the draft HCP and that includes all of LADWP lands in Inyo and Mono Counties). LADWP is developing an HCP to cover its ongoing activities, which include water gathering, water distribution, hydroelectric power production, power transmission activities, and continuation of other land uses. These other land uses include irrigated agriculture, livestock grazing, recreation, fire and weed management, road maintenance and closures, and habitat enhancements for covered species (those species addressed in the draft HCP). One of the covered species in the draft HCP is the Bi-State DPS; therefore, the HCP would provide a conservation benefit to the Bi-State DPS and its habitat. The current draft HCP proposes to conserve all existing sage-grouse habitat for the life of the permit (i.e., 10 years), and possibly longer if the permit is renewed.

(9) Infrastructure (Roads, Power Lines, and Transmission and Communication Towers)—The development of new infrastructure including roads, power lines, transmission towers, and communication towers within sage-grouse habitat will be avoided to the extent practicable. Impacts to sage-grouse will be considered to reduce

effects such as habitat fragmentation and increased predator presence, and minimization measures will be implemented if new infrastructure does occur.

(10) Infrastructure (Fencing)—Fences within 2 km (1.25 mi) of occupied leks are evaluated to determine if collisions are occurring or to determine the potential for collisions (following guidelines presented in the Service's *Greater Sage-grouse Conservation Objectives Team (COT) Final Report* (Service 2013b, p. 52). Future fencing will be evaluated for the potential impacts to sage-grouse. Unnecessary fencing in high-risk areas will be removed. Additionally, LADWP has been installing "let down" fencing (i.e., permanent metal fence posts with horizontal wire strands that can be effectively removed during the sage-grouse breeding season or when cattle are not present), thus reducing the likelihood of sage-grouse collisions. To date, LADWP has installed approximately 3.2 km (2 mi) of let-down fencing in the vicinity of the largest lek in Long Valley; another 0.8 km (0.5 mi) of fencing will be converted to let-down in 2013.

To ensure the continuation of this management, LADWP has committed to developing and implementing a conservation strategy to proactively manage the Bi-State DPS on their lands within the Bodie and South Mono PMUs (B. Tillemans 2013, *in litt.*). To coordinate these efforts, we anticipate co-signing an MOU with LADWP (until such time as an HCP is completed) for implementing a sage-grouse conservation strategy that will address the threats to sage-grouse in the Bi-State area as outlined in the Service's *COT Final Report* (Service 2013b, entire). As a result, we will consider excluding

LADWP lands from the final critical habitat designation based on the protections provided through our partnership with LADWP, and to the extent consistent with the requirements of section 4(b)(2) of the Act.

The Secretary is considering exercising her discretion to exclude 15,535 ha (38,389 ac) that meet the definition of critical habitat for the Bi-State DPS in the North Mono Lake Unit 2 and South Mono Lake Unit 3. Habitat-related threats present on LADWP lands that may require special management considerations or protection include, but are not limited to, recreation, rangeland management, and surface water management (see the proposed listing rule for the Bi-State DPS (published elsewhere in today's **Federal Register**) for additional discussion of threats resulting in the present or threatened destruction, modification, or curtailment of the Bi-State DPS's habitat or range). The existing conservation actions being implemented by the LADWP and the proposed MOU help address these threats to the Bi-State DPS. We are considering excluding 15,535 ha (38,389 ac) in Units 2 and 3 based on the protections provided through our partnership with LADWP, to the extent consistent with the requirements of section 4(b)(2) of the Act. We encourage any public comment regarding our consideration to exclude this area in the final critical habitat designation (see **Information Requested** section above).

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. A thorough review of information that we relied on in making this determination—including information on taxonomy, habitat, distribution, population estimates and trends, and potential threats—is presented in the Bi-State DPS Species Report available at <http://www.regulations.gov> (Docket No. FWS–R8–ES–2013–0042). A summary of this analysis is found within the proposed listing rule published elsewhere in today’s **Federal Register**. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, and analyses. We have invited these peer reviewers to comment during this public comment period.

We will consider all comments and information received during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule public hearings on this proposal, if any are requested, and announce the dates,

times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include such businesses as manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and forestry and logging operations with fewer than 500 employees and annual business less than \$7 million. To determine whether small entities

may be affected, we will consider the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

The Service’s current understanding of recent case law is that Federal agencies are only required to evaluate the potential impacts of rulemaking on those entities directly regulated by the rulemaking; therefore, they are not required to evaluate the potential impacts to those entities not directly regulated. The designation of critical habitat for an endangered or threatened species only has a regulatory effect where a Federal action agency is involved in a particular action that may affect the designated critical habitat. Under these circumstances, only the Federal action agency is directly regulated by the designation, and, therefore, consistent with the Service’s current interpretation of RFA and recent case law, the Service may limit its evaluation of the potential impacts to those identified for Federal action agencies. Under this interpretation, there is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated, such as

small businesses. Therefore, because Federal agencies are not small entities, the Service certifies that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities.

However, Executive Orders 12866 and 13563 direct Federal agencies to assess costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. In other words, while the effects analysis required under the RFA is limited to entities directly regulated by the rulemaking, the effects analysis under the Act, consistent with the E.O. regulatory analysis requirements, can take into consideration impacts to both directly and indirectly impacted entities, including small business entities, where practicable and reasonable. Our draft economic analysis will assess and consider the incremental costs of the proposed designation, to the extent practicable, to fulfill these requirements.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Energy distribution facilities (i.e., power lines and one geothermal facility) are present within this proposed critical habitat designation, although we do not expect the designation of this proposed critical habitat to significantly affect energy supplies, distribution, or use. This is because, under section 7

of the Act, the lead agency for a proposed project would need to consider project modifications only if the project were to reach a threshold of jeopardizing the continued existence of the DPS or destroy or adversely modify its critical habitat, a scenario that is unlikely within the footprint of the existing power lines and geothermal facility for this DPS. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under

entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would

critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule would significantly or uniquely affect small governments because the majority of lands (i.e., 86 percent) being proposed for designation are Federal lands (including Humboldt-Toiyaba National Forest, Inyo National Forest, Carson City District BLM, Bishop Field Office-BLM, Tonopah Field Office-BLM, and Stillwater Field Office-BLM) and State lands (the Slinkard/Little Antelope Valley, Green Creek, East Walker River, and Pickel Meadow Wildlife Areas) in both Nevada and California. None of these government entities fits the definition of “small governmental jurisdiction.” Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue (including with regards to the tribal lands (Washoe Tribe of Nevada and California, Bridgeport Paiute Indian Colony, Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation (California), and the Death Valley Timbi-sha Shoshone Tribe) and private lands that represent a significantly smaller proportion of the proposed critical habitat designation) as we conduct our economic analysis, and review and revise this assessment as warranted.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (“Government Actions and Interference with Constitutionally Protected Private Property Rights”), this rule is not anticipated to have significant takings implications. As discussed above, the designation

of critical habitat affects only Federal actions. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. Due to current public knowledge of the DPS's protections and, if we list the DPS, the prohibition against take of the DPS both within and outside of the proposed critical habitat units, we do not anticipate that property values will be affected by the critical habitat designation.

However, we have not yet completed the economic analysis for this proposed rule. Once the economic analysis is available, we will review and revise this preliminary assessment as warranted, and prepare a takings implication assessment.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism summary impact statement is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Nevada and California. The designation of critical habitat in areas currently occupied by the Bi-State DPS imposes no additional restrictions to those that would be put in place by listing the DPS and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the DPS are more clearly defined, and

the elements of the features necessary to the conservation of the DPS are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the DPS, the rule identifies the elements of physical or biological features essential to the conservation of the DPS. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This proposed rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-

to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

There are tribal lands in Nevada and California included in this proposed designation of critical habitat. These include lands owned or managed by the Washoe Tribe of Nevada and California, Bridgeport Paiute Indian Colony, Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation, and the Death Valley Timbi-sha Shoshone Tribe. Using the criteria found in the *Criteria Used To Identify Critical Habitat* section above, we have determined that all of the areas proposed for designation on tribal lands are essential to the conservation of the DPS. We will seek government-to-government consultation with these tribes throughout the proposal process and development of the final designation of critical habitat for the Bi-State DPS. At this time we are not considering any tribal lands for exclusion from final critical habitat designation. We recently informed all four tribes of how we are evaluating section 4(b)(2) of the Act and of our interest in consulting with them on a government-to-government basis.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and upon request from the Nevada Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Pacific Southwest Regional Office, Nevada Fish and Wildlife Office, and Ventura Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245; unless otherwise noted.

2. In § 17.95, amend paragraph (b) by adding an entry for “Bi-State Distinct Population Segment of the Greater Sage-grouse (*Centrocercus urophasianus*),” in the same alphabetical order that the species appears in the table at § 17.11(h), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(b) *Birds.*

* * * * *

Bi-State Distinct Population Segment of the Greater Sage-grouse (*Centrocercus urophasianus*)

(1) Critical habitat units are depicted for Carson City, Douglas, Esmeralda, Lyon, and Mineral Counties, Nevada, and Alpine, Inyo, and Mono Counties, California, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Bi-State DPS of greater sage-grouse consist of four components:

(i) *Landscape-scale Primary Constituent Element 1.* Areas with vegetation composed primarily of sagebrush plant communities of sufficient size and configuration to encompass all seasonal habitats for a given population of greater sage-grouse, or facilitate movements within and among populations. This includes former sagebrush communities in specific locations that are currently primarily woodland encroached sites that potentially provide connectivity between populations.

(ii) *Site-scale Primary Constituent Element 2.* Breeding habitat composed of sagebrush plant communities with structural characteristics within the following ranges (habitat structure values are average values):

Vegetation Variable	Amount of Occurrence in the Habitat
Sagebrush Canopy Cover	>20 percent
Non-sagebrush Canopy Cover	>20 percent
Total Shrub Canopy Cover	>40 percent
Sagebrush Height	>30 centimeters (12 inches)
Perennial Grass Cover	No less than 5 percent but >10 percent if total shrub cover <25 percent
Annual Grass Cover	<5 percent
Forb Cover	>10 percent
Grass/Forb Height	>18 centimeters (7 inches)

(iii) *Site-scale Primary Constituent Element 3.* Brood-rearing habitat composed

of sagebrush plant communities and mesic habitats used primarily in the summer to late fall season. These sites include, but are not limited to, riparian communities, springs, seeps, and mesic meadows, with structural characteristics within the following ranges:

Vegetation Variable	Amount of Occurrence in the Habitat
Sagebrush Canopy Cover	10 to 25 percent
Total Shrub Canopy Cover	14 to 25 percent
Sagebrush Height	>30 cm (12 in)
Perennial Grass Cover	>7 percent
Perennial Forb Diversity	>5 species present
Forb Cover	>7 percent
Grass/Forb Height	18 cm (7 in)
Meadow Edge (ratio perimeter to area)	>0.015
Species Richness	>5 species

(iv) *Site-scale Primary Constituent Element 4.* Winter habitat composed of sagebrush plant communities with sagebrush canopy cover greater than 10 percent and sagebrush height of greater than 25 centimeters (9.8 inches) above snow level.

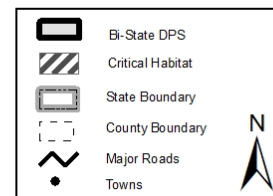
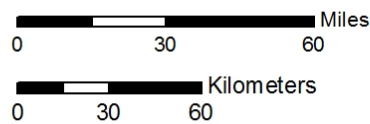
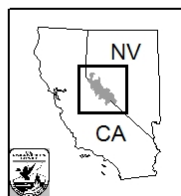
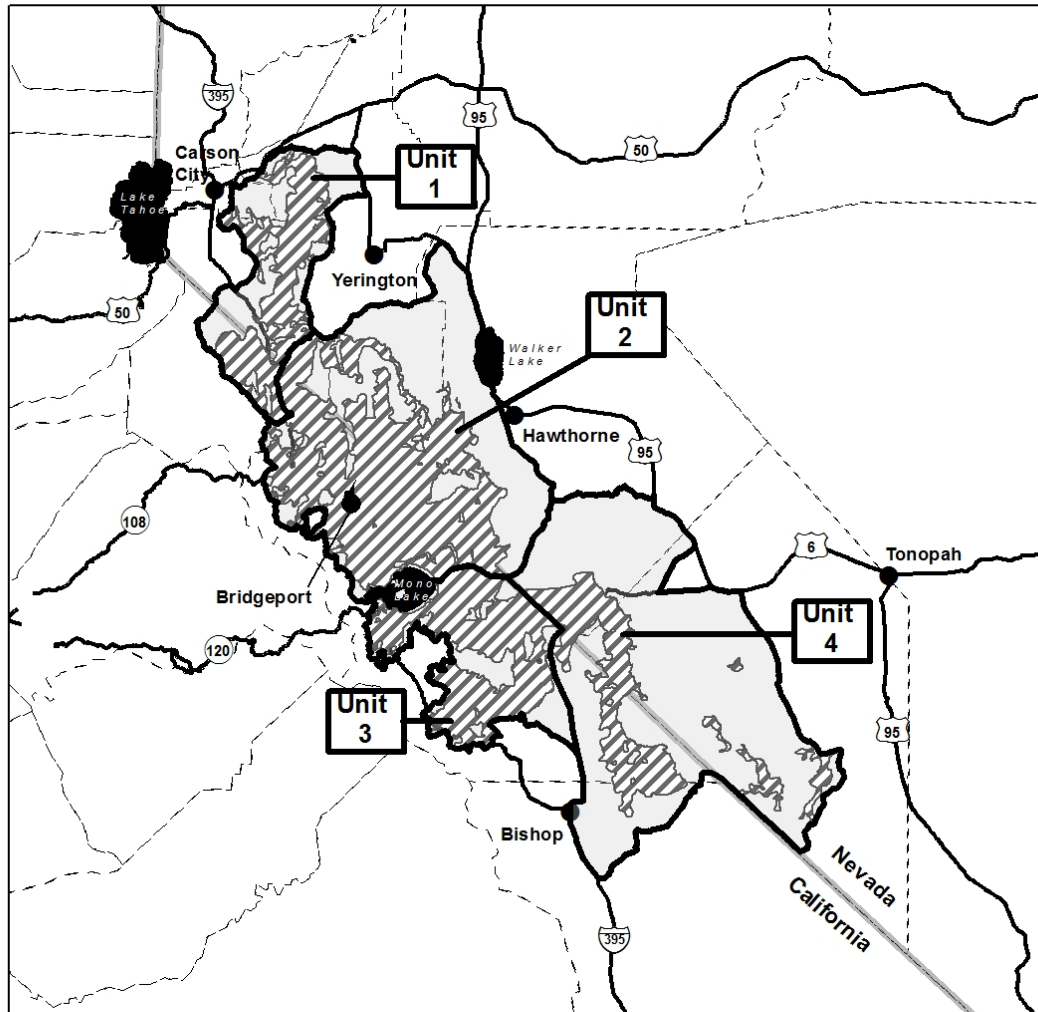
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [EFFECTIVE DATE OF FINAL RULE].

(4) *Critical habitat map units.* Data layers defining map units were created from

a number of geospatial and informational data, including (but not limited to): the 2012 Bi-State greater sage-grouse Preliminary Priority Habitat (PPH) Map (Bi-State TAC PPH 2012b), a map product depicting occupied habitat developed by the Bureau of Land Management (BLM) in 2008 (BLM 2008), the 2012 Bi-State Action Plan (Service 2012b), multiple broad-scale vegetation mapping products, and telemetry data sets. Critical habitat units were then mapped as shapefiles using Universal Transverse Mercator (UTM) Zone 11N coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site (<http://www.fws.gov/nevada/> and <http://www.fws.gov/ventura/>), at <http://www.regulations.gov> at Docket No. FWS-R8-ES-2013-0042 and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

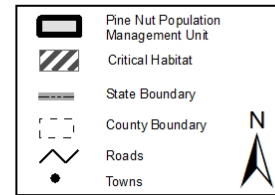
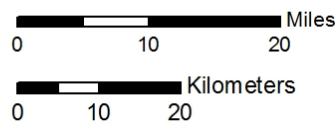
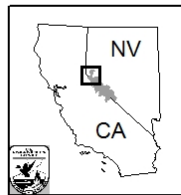
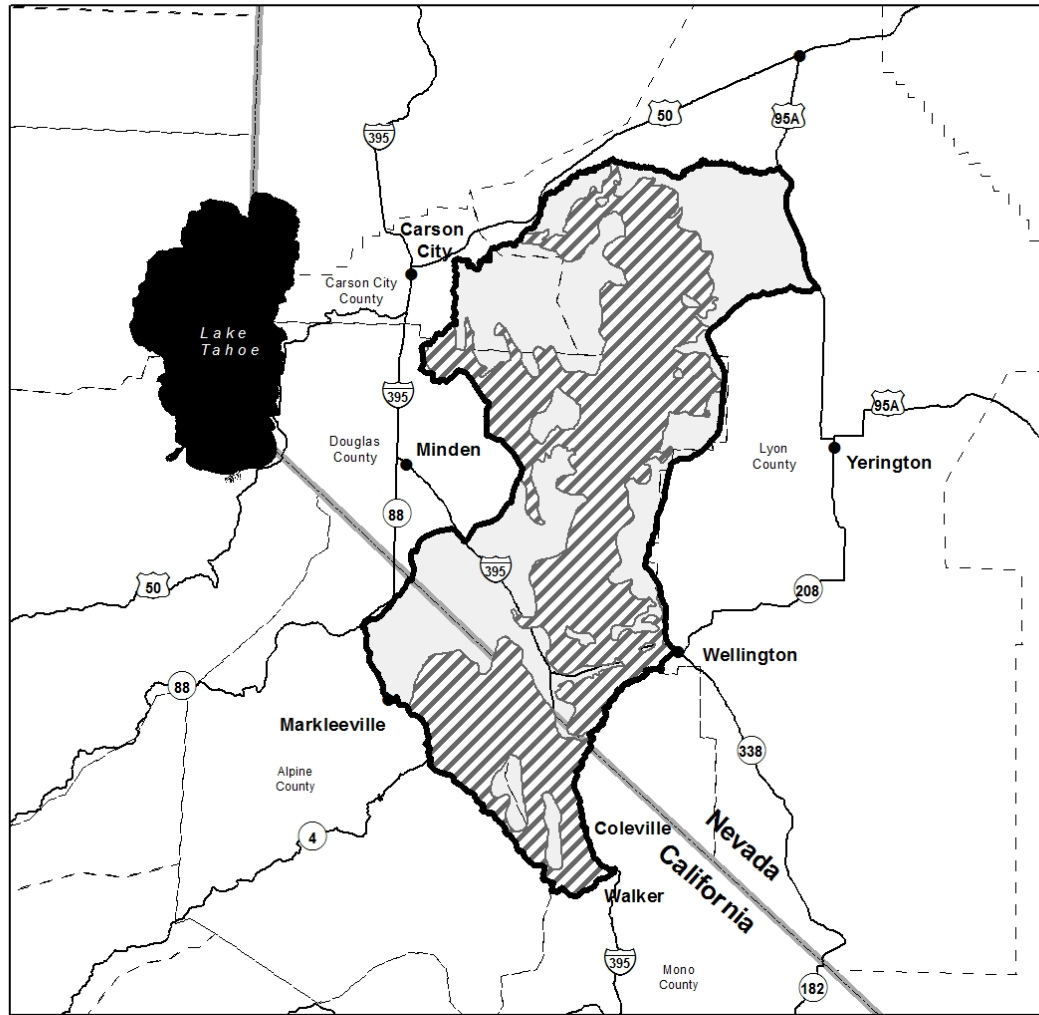
(5) Index map follows:

**Index Map: Critical Habitat for Bi-State Distinct Population Segment (DPS) of Greater Sage-Grouse;
Alpine, Inyo, and Mono Counties, California; and
Carson City, Douglas, Esmeralda, Lyon, and
Mineral Counties, Nevada**



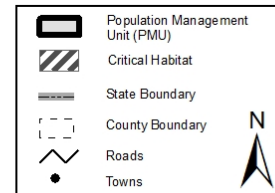
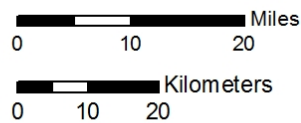
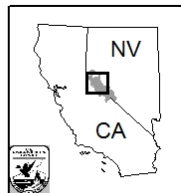
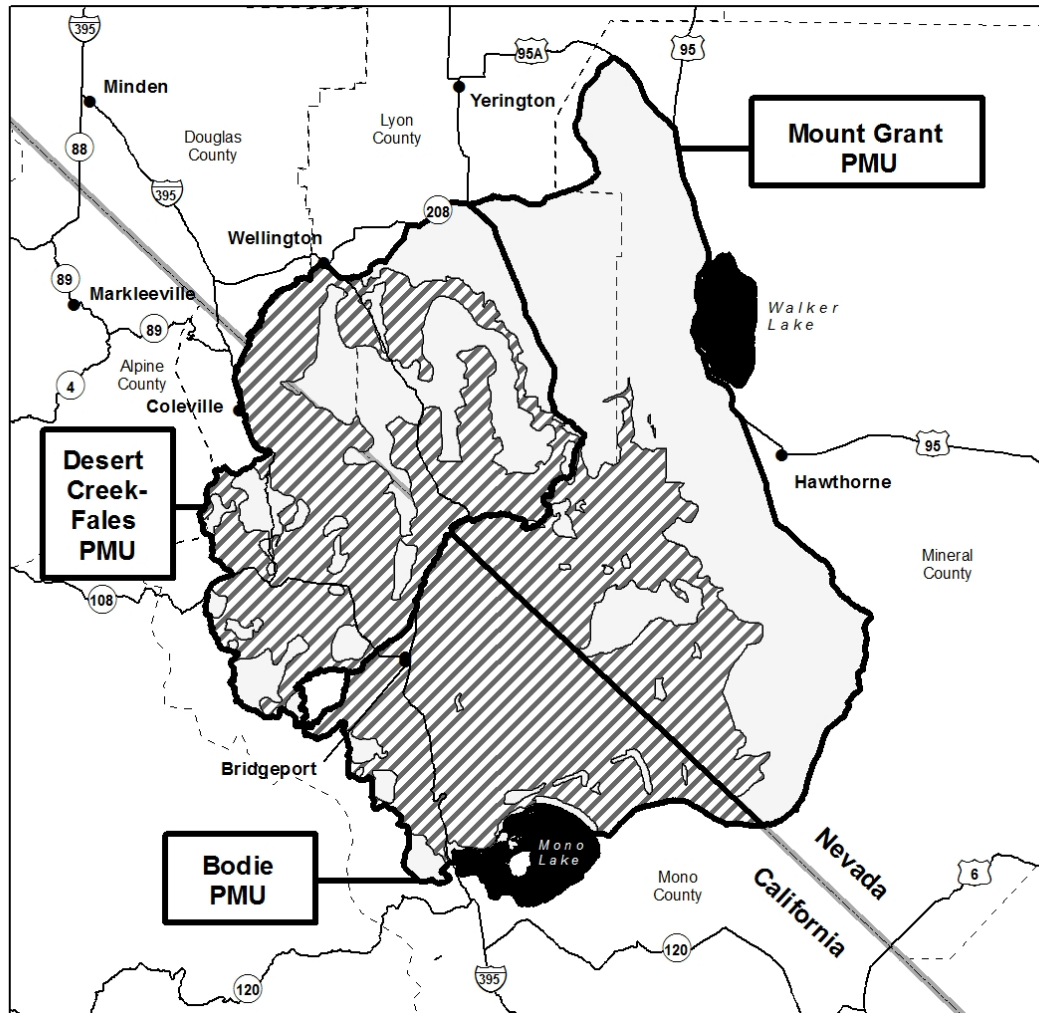
(6) Unit 1: Pine Nut; Carson City, Douglas, and Lyon Counties, Nevada, and Alpine and Mono Counties, California. Map of Unit 1 follows:

**Unit 1: Critical Habitat for Bi-State Distinct Population
Segment of Greater Sage-Grouse;
Carson City, Douglas, and Lyon Counties, Nevada; and
Alpine and Mono Counties, California**



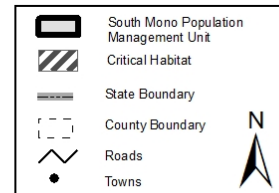
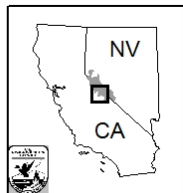
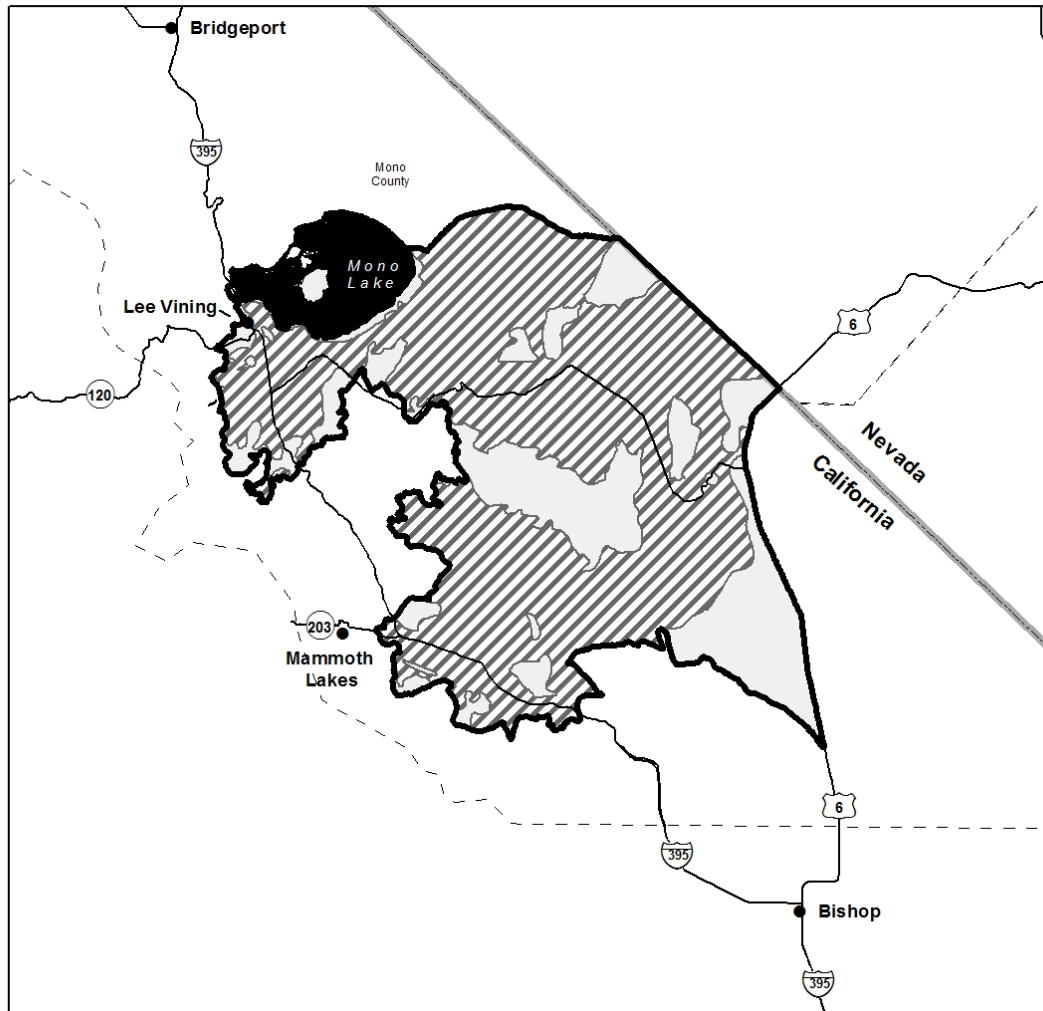
(7) Unit 2: North Mono Lake; Douglas, Lyon, and Mineral Counties, Nevada, and Alpine and Mono Counties, California. Map of Unit 2 follows:

**Unit 2: Critical Habitat for Bi-State Distinct Population Segment
of Greater Sage-Grouse;
Douglas, Lyon, and Mineral Counties, Nevada; and
Alpine and Mono Counties, California**



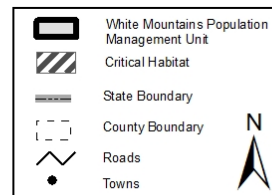
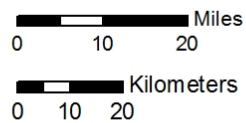
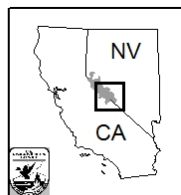
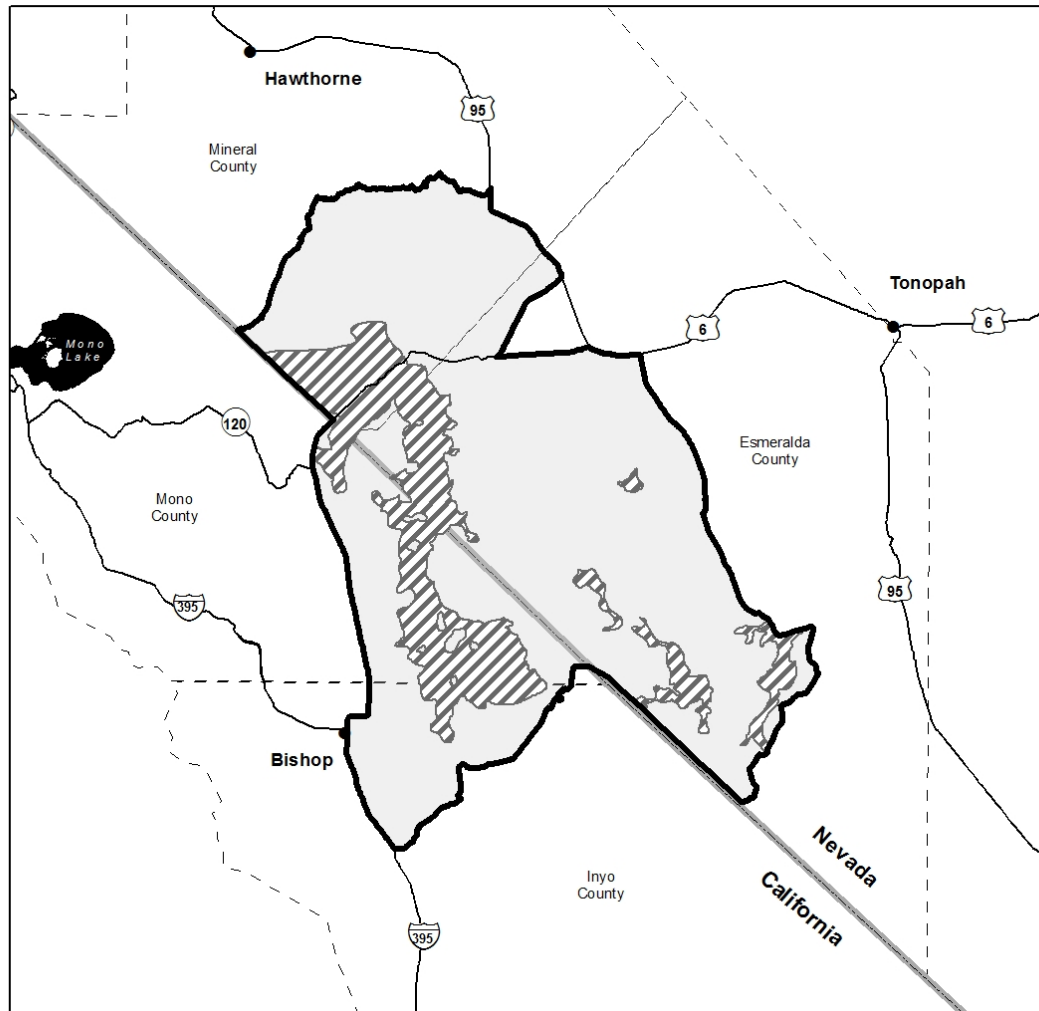
(8) Unit 3: South Mono Lake; Mono County, California. Map of Unit 3 follows:

Unit 3: Critical Habitat for Bi-State Distinct Population Segment of Greater Sage-Grouse; Mono County, California



(9) Unit 4: White Mountains; Esmeralda and Mineral Counties, Nevada, and Inyo and Mono Counties, California. Map of Unit 4 follows:

**Unit 4: Critical Habitat for Bi-State Distinct Population
Segment of Greater Sage-Grouse;
Esmeralda and Mineral Counties, Nevada; and
Inyo and Mono Counties, California**



* * * * *

Dated: _____September 26, 2013_____

____Rachel Jacobsen_____

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310-55-P

[FR Doc. 2013-24305 Filed 10/25/2013 at 8:45 am; Publication Date: 10/28/2013]